

TENNESSEE.

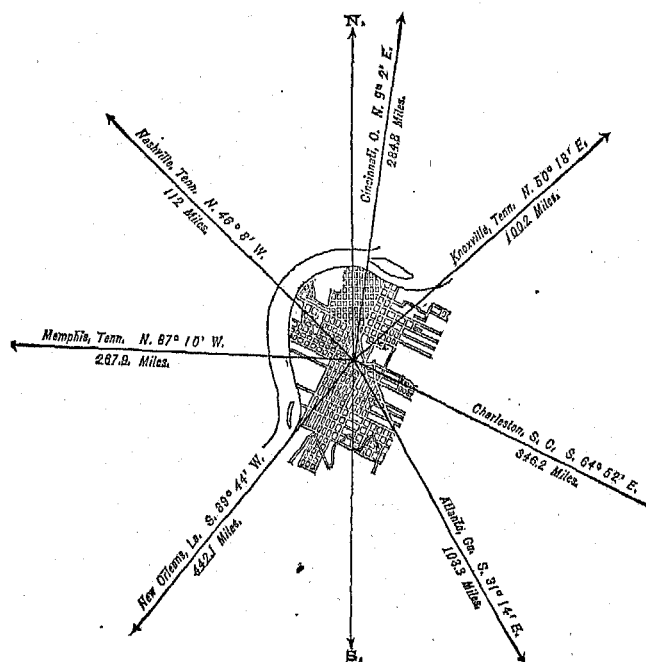
CHATTANOOGA,

HAMILTON COUNTY, TENNESSEE.

POPULATION

IN THE
AGGREGATE,
1860-1880.

	Inhab.
1790.....	.....
1800.....	.....
1810.....	.....
1820.....	.....
1830.....	.....
1840.....	.....
1850.....	.....
1860.....	2,545
1870.....	6,093
1880.....	12,892



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	6,512
Female.....	6,380
Native	12,173
Foreign-born.....	719
White.....	7,807
Colored	*5,085

* Including 3 Indians.

Latitude: 35° 2' North; Longitude: 85° 21' (west from Greenwich); Altitude: 630 to 971 feet.

FINANCIAL CONDITION:

Total Valuation: \$3,600,925; per capita: \$279 00. Net Indebtedness: \$116,264; per capita: \$9 02. Tax per \$100: \$2 75.

HISTORICAL SKETCH.

The first settlement of the site of Chattanooga by whites was made in 1836, immediately after the cession of the lands by the Cherokee nation of Indians. The first sale of lots took place April 20, 1839. The first charter of incorporation was granted in 1841, and on November 5, 1851, a new charter was granted by the legislature, giving city privileges and extending the limits. The population gradually increased by immigration from the adjoining states. The facilities afforded by the navigation of the river, and the building of some three different railways, gave the city considerable trade—a trade in grain and provisions superior to that of any other inland city of the state—and it had, in 1860, more than 2,500 inhabitants.

Chattanooga was the theater of some of the most important events in the civil war. Its trade was interrupted, its people were scattered, and a great portion of its buildings destroyed, so that at the close of the war it was but a wreck of its former importance and prosperity. A great many northern soldiers settled here permanently, others moved here from the north and the south, and so patent were the advantages of the place that by 1870 the population amounted to 6,093. Owing to the rapid development of the mineral resources of the adjoining country the population is fast increasing, and is about equally divided between settlers from the northern and from the southern states.

The principal periods of business depression were during the war, and in and since 1873. A very destructive fire occurred in 1871, when two squares of business houses were destroyed; but they were speedily replaced by superior buildings.

CHATTANOOGA IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Chattanooga:

LOCATION.

Chattanooga lies in latitude $35^{\circ} 2'$ north, longitude $85^{\circ} 21'$ west from Greenwich, in the southeastern part of the state, and on the left bank of the Tennessee river, about 200 miles, by water, below Knoxville. The altitudes above sea-level are, lowest point 630, and highest 971 feet. The draught of water in the Tennessee river at the city, except at extreme low stages, is 3 feet, and improvements are now in progress for securing this depth at all times. The landing is sufficient for the accommodation of the 8 or 10 steamboats, of from 55 to 260 tons capacity, now navigating the river, and can readily be increased almost indefinitely. This part of the river is navigable from Knoxville, Tennessee, to Decatur, Alabama, a distance of 349 miles, and, on the completion of the work now on hand at the Muscle shoals, the river will be navigable to the Ohio, and thus be connected with the Mississippi and its tributaries. Water communication is now open to Knoxville, Loudon, Kingston, and Charleston, Tennessee, and with Guntersville, Bridgeport, and Decatur, in Alabama.

RAILROAD COMMUNICATIONS.

Chattanooga is touched by the following lines of railroad:

The Nashville, Chattanooga, and Saint Louis railroad, to Saint Louis, Missouri.

The Memphis and Charleston railroad, to Memphis, Tennessee.

The Alabama Great Southern railroad, to Meridian, Mississippi.

The Western and Atlantic railroad, to Atlanta, Georgia.

The East Tennessee, Virginia, and Georgia railroad, to Bristol, Tennessee, and the Norfolk and Western connections.

The Cincinnati Southern, to Cincinnati, Ohio.

These lines give to the city the most ample connections with all points in the country.

TRIBUTARY COUNTRY.

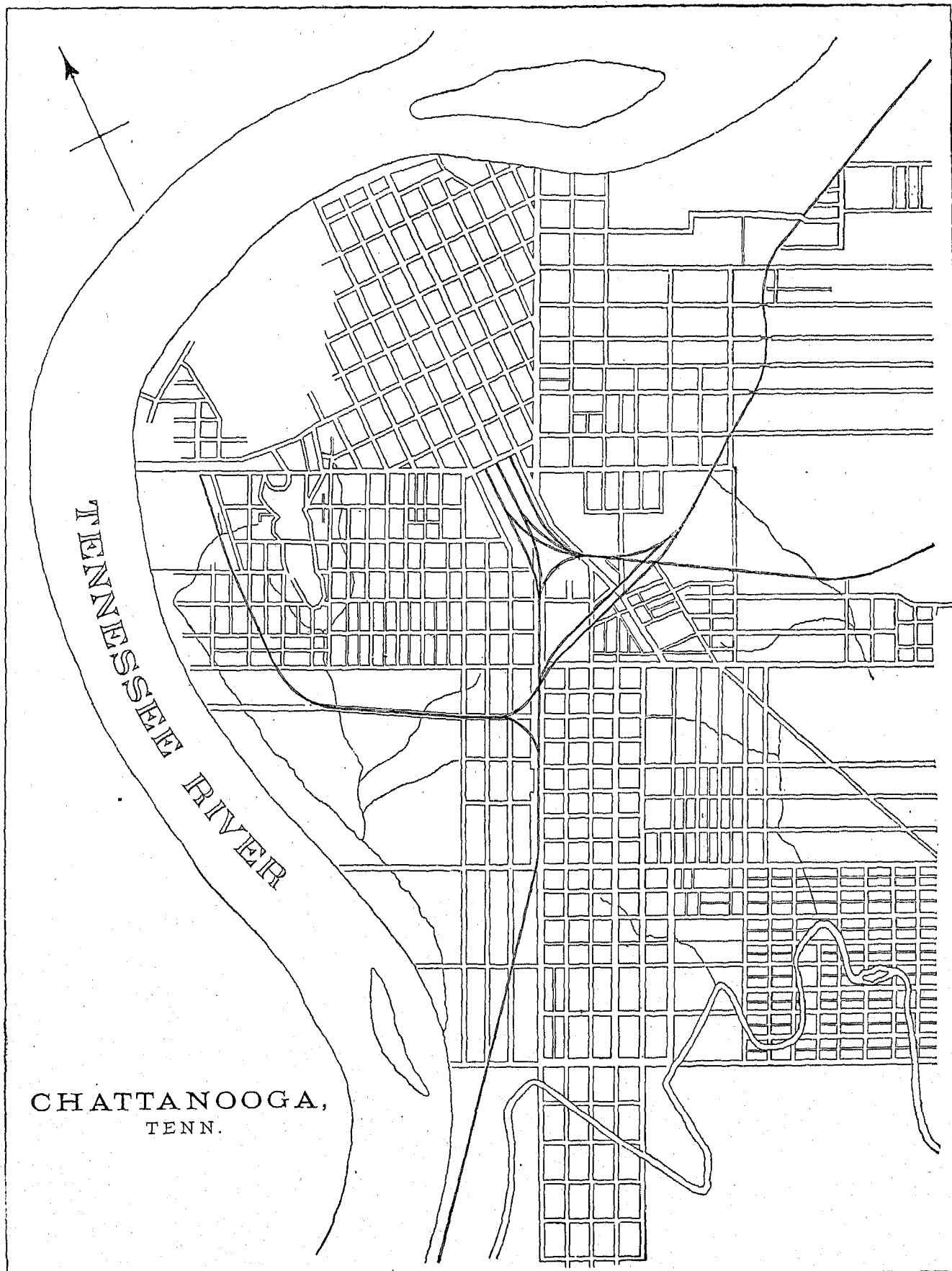
The soil immediately surrounding the city is light, and poor for general agriculture, except the river bottom-lands, which are very productive, yielding large crops of corn, wheat, and hay. The ridge-lands are very favorable for orchards and vineyards, whose cultivation is growing here to important proportions. There are in this vicinity several extensive coal-mines, beds of iron ore, and quarries of limestone, which give employment to a large number of men. The commercial interests of the city with the country immediately adjoining are not large, most of the products of Chattanooga's mills and factories finding more distant markets.

TOPOGRAPHY.

The general surface of the city is hilly, the hills varying in height from a slight rise to 300 feet. The soil is mainly a red clay; the hills are, in part, of a drift of gravel, iron ore, shale, blue and white clay, flint-gravel, and veins of a poor quality of bituminous coal. The rock immediately underlying a great part of the city, and cropping out in many places, is limestone. The surrounding country, within a radius of 3 miles, is generally open; outside of this the region is mountainous; the Lookout mountains, Raccoon mountains, Wallen's ridge (a spur of the Cumberland mountains), and Missionary ridge surround the city on all sides but one, and are all well wooded.

CLIMATE.

Highest recorded summer temperature, 104° ; highest summer temperature in average years, 95° . Lowest recorded winter temperature, -3° ; lowest winter temperature in average years, 16° .



STREETS.

Total length, 65 miles, of which 4 miles are paved with broken stone and $1\frac{1}{2}$ mile with gravel. The cost per square yard for each, as nearly as may be estimated, is, for broken stone $33\frac{1}{2}$ cents, and for gravel $12\frac{1}{2}$ cents. Each is kept clean with about equal facility. Gravel paving, with a good stone foundation, is preferred for durability and economy. The city is deficient in sidewalks; what it has are made of stone, brick, gravel, cinders, asphaltum, and plank. Gutters are paved with riprap and flagstones, the former predominating. Except on business streets, citizens are allowed to plant trees on the margin of the sidewalks. The work of construction and repair of streets is sometimes done by contract, but more frequently by the city's own force. About \$7,000 is annually expended in this work. As a rule, day work is preferred. At present neither a steam stone-crusher nor a roller is used, though the use of the former is contemplated for future work.

HORSE-RAILROADS.

There are $2\frac{3}{4}$ miles of horse-railroads in the city, using 7 cars and 20 horses, and giving employment to 11 men. The rate of fare is 5 cents. There are no regular omnibus lines.

WATER-WORKS.

The water-works are owned by a private corporation called the "Lookout Water Company", organized in 1866, and their total cost was \$130,000. The water is pumped into a reservoir in the northern part of the city, and 175 feet above low water in the Tennessee river (the source of supply), giving a pressure of 80 pounds to the square inch. From 1,250,000 to 2,000,000 gallons are pumped daily through about 12 miles of pipe. There are 58 fire-plugs, for which the city pays annually \$50 each. No extra charge is made for water for flushing sewers, but the city pays for the use of water in the public buildings about \$100 per year; also, under the present contract, as additional compensation, the water-works are exempt from municipal taxation. No water-meters are used. Street-sprinkling is done by private parties, who make their own contracts. The annual cost for maintenance of the works is \$15,500, and the yearly income is about \$19,500.

GAS.

The gas-works are owned by a private corporation. The daily average production is 25,000 feet; the charge per 1,000 feet is \$2 70. The city pays \$30 per annum for each street-lamp, 100 in number. The total length of pipe laid is 6 miles.

PUBLIC BUILDINGS.

The city owns no public buildings of any consequence, but occupies for municipal purposes the buildings owned by the county.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Chattanooga is without public parks.

PLACES OF AMUSEMENT.

While without theaters, Chattanooga has the following halls: James' hall, used for theatrical purposes, seating capacity, 800; and Phoenix hall, Poss' hall, Concordia hall, and Oliffinger's hall, used for festivals, lectures, armories, churches, etc. James' hall pays an annual license fee of \$75.

DRAINAGE.

A general plan for the drainage of this city was adopted in 1880. It provides for a sewer in every street throughout the principal part of the city, and establishes the location, grade, size, and character of each sewer at all points. Most of the laterals will deliver into a main sewer at Broad street, about the middle of the city, which is to discharge into the Tennessee river; 2,840 feet of this sewer have been built between Third and Ninth streets; the remaining three blocks to the river have not yet been constructed.

This main is described in a report of the street committee as "an egg-shaped sewer, built of vitrified brick, two thick, and well laid in cement-mortar". Its size varies from 60 by 40 inches to 75 by 50 inches. The lateral sewers in each street have, at their connection with the main, an oval section of 30 by 20 inches; the size is to be reduced as they recede from the main; 1,620 feet of laterals of this size have been built, also 451 feet of vitrified-pipe sewer, making the total length constructed, including the main, 4,911 feet. The cost of this work, including inlet-basins, was \$23,146 60.

The street committee in its report of this work says:

Our experience this year, in being compelled to abandon pipe heretofore laid, especially the 24-inch pipe on Eighth street, which was put down at heavy expense, taught the lesson that not one foot of sewer should be built in any part of the town until the system has been established, and then all sewers should be built in conformity therewith. * * * It has also demonstrated that no street should be permanently improved until the sewer is built, where there is any probability of its construction within a reasonable time.

CEMETERIES.

Chattanooga has 5 cemeteries, as follows:

Old City Cemetery, on the northeastern side of the city.

Confederate Cemetery, connected with the above.

Jewish Cemetery, adjoining the above two on the east.

National Cemetery, on the city's eastern outskirts.

Forest Hills Cemetery, $1\frac{1}{2}$ mile distant from the city in a southerly direction.

The total number of interments in each is about as follows: Old City cemetery, 2,000; Confederate cemetery, 400; Jewish cemetery, 50; National cemetery, 13,000, and Forest Hills cemetery, new, 50. There are no burial-grounds where interments are no longer permitted. Forest Hills cemetery belongs to a private corporation and comprises 116 acres. It was laid out this year, and, in general, the regulations of Spring Grove cemetery, Cincinnati, have been adopted. The price of lots ranges from $12\frac{1}{2}$ to 20 cents per square foot. The cost of the property, with improvements, is about \$10,000. The City cemetery continues to be the last resting-place of the greater portion of Chattanooga's dead. This is a public cemetery and belongs to the city. A superintendent has charge of the grounds under the direction of a board of directors. The National cemetery is owned by the United States government, and contains the bodies of 13,000 Union soldiers who fell in the late war. Before burials can be made, permits must be obtained. Except during epidemics there are no restrictions as to the time of burial after death. The usual depth given to graves is 6 feet.

MARKETS.

Chattanooga has no public or corporation markets.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary organization of the city is vested in a board of health, composed of 5 physicians, elected by the mayor and board of aldermen, with the mayor, city physician, city engineer, and 1 alderman (who is chairman of the hospital committee) as members *ex officio*—9 in all. The members serve without compensation. The board is under the control of the mayor and aldermen, who can abolish it at any time. The ordinary annual expense of the board is about \$50, \$36 being for salary of the secretary, and the balance for stationery. During an epidemic the board may increase its expenses to \$250. In the absence of epidemics the board recommends health measures to the city council; it may declare and remove nuisances, and may establish and enforce such sanitary regulations as it may deem best calculated to guard against epidemics or malignant diseases; "but this does not authorize it to establish quarantine". During epidemics the board, through its quarantine officer (a member and physician), may apply directly to the board of mayor and aldermen for enactment of quarantine. The chief executive officer of the board is the secretary and registrar of vital statistics. This term indicates his duties, and his only compensation appears to be the \$36 paid him for registration. One sanitary inspector is employed constantly, and an additional one is employed during four months in the year; neither of them is a physician; they have police powers, and execute the orders of the board regarding nuisances. The business of the board is transacted at regular monthly meetings, or called sessions if necessary, and five members constitute a quorum.

Inspections are made regularly and constantly, and reports are made upon every house and lot. When nuisances are reported, and are ascertained to be such, inspectors direct the abatement and the mode; if it is not done, the parties responsible are arrested and tried, either before a justice of the peace or the city recorder. Concerning the inspection and correction of defective house-drainage, privy-vaults, cesspools, sources of drinking-water, sewerage, street-cleaning, etc., action is taken only when these are reported to the board or its officers. As to the conservation and removal of garbage, the board has only advisory powers. For burial of the dead, a physician's certificate and a permit issued by the registrar of vital statistics must first be obtained. The board has no special regulations concerning the pollution of streams or the removal of excrement.

INFECTIOUS DISEASES.

Small-pox patients are removed to the pest-house, situated 3 miles south of the city, but not owned by it. Scarlet fever is of such rare occurrence (but 6 deaths from it in fifteen years) that no special regulations governing the disease are found necessary; nor has the board ever taken action upon the breaking out of contagious diseases in schools. Upon public-school children vaccination is compulsory, but the same is not done at the public expense.

A register is kept by the registrar of vital statistics of deaths, but not of diseases and births.

REPORTS.

The board reports annually to the city council, but the reports are published only as matters of news by the local papers. Dr. E. M. Wight, who furnishes the foregoing information regarding sanitary matters, adds the following: "Public interest since 1878—yellow fever—has been alert, and all respectable medical men are in harmony and awake to the interests of the public health and the work of health boards."

MUNICIPAL CLEANSING.

Street-cleaning.—The work of street-cleaning is done by the city's prison force, by hand, and is done as often as occasion requires. This work is not done as well as it should be; on macadamized streets considerable mud, etc., accumulate. The sweepings are deposited on unimproved streets. The cost of the work is not made a separate item.

Removal of garbage and ashes.—Garbage is removed by the city with its own force. It must be put in boxes or barrels, and before 8 a. m. of each day the same must be placed convenient for loading and removal by the city scavenger. Ashes and garbage may be kept in the same vessel, and both are disposed of outside of the city limits. The annual cost of removal to the city is \$700. Occasionally nuisances result from the improper handling and disposal of garbage.

Dead animals.—The carcass of any animal dying within the city must be removed by the owner to a designated locality beyond the limits. If the owner can not be found, the city removes the carcass at its own expense.

Liquid household wastes.—Household slops, including the waste-water from sleeping-rooms, are disposed of in various ways; in some cases they are run into street-gutters, in others into cesspools; and, in case of houses connected with the public sewers, into these. The dry wells and cesspools in use are porous. Though offensive household wastes are run into the street-gutters, there is no system of flushing them in vogue. In some instances cesspools receive the wastes from water-closets. It is not believed that the drinking-water is contaminated in any way from the contents of privy-vaults or cesspools.

Human excreta.—Only about 5 per cent. of the houses in the city have water-closets, the remainder depending on privies. Privy-vaults must be dug not less than 6 feet deep, and at least 4 feet from any street, etc., or from the property of another except with his consent; when dry-earth privies are used, the contents are removed at least twice each month. When privy-vaults become full or offensive, their contents are required to be removed beyond the city limits. The dry-earth system is used to a limited extent. Night-soil is not allowed to be used for manuring land within the gathering-ground of the public water-supply.

Manufacturing wastes.—No information was furnished as to the disposal of liquids, but the solid wastes from iron-works are used largely by railroad companies as road bed ballast, and by the city as a covering for the surface of the less-used streets.

POLICE.

The police force of the city of Chattanooga is elected by the city council and governed by a board of police-commissioners. The title of the chief executive officer is "the city marshal". He has direct control of the force as its head. His salary is \$1,000 per annum and the fees attached to the office. The rest of the force consists of one lieutenant at \$900 a year and fees, and 12 patrolmen at \$600 a year each. The uniform is of blue cloth, and is provided by the men themselves. The patrolmen are armed with club and pistol; they serve each 12 hours per day, and they patrol all the streets in the city. The arrests for 1880 numbered about 1,300, the principal causes being fighting, drunkenness, and carrying concealed weapons. No free meals were given to station-house lodgers during the year. The force is required to co-operate with the health department by noting the sanitary condition of the several wards and reporting all nuisances. The yearly cost of the police force (1880) is \$11,000.

FIRE DEPARTMENT.

The manual force of the department consists of 102 men and the apparatus. They are divided as follows: 1 fire company with 1 fourth-class Ahrends steam fire-engine, 2 four-wheeled and 1 two-wheeled hose-carriages, 950 feet of unreliable hose, and 36 men; 1 fire company with 1 two-wheeled hose-carriage, 500 feet of good hose, and 36 men, and 1 hook-and-ladder company with 1 hook-and-ladder truck complete and 30 men. The expenses of the department for the year ending November 1, 1879, were \$5,433. The loss by fires, 8 in number, during the same period, as given in the report of the chief of the fire department (and from which the foregoing is taken), was \$15,500.

PUBLIC SCHOOLS.

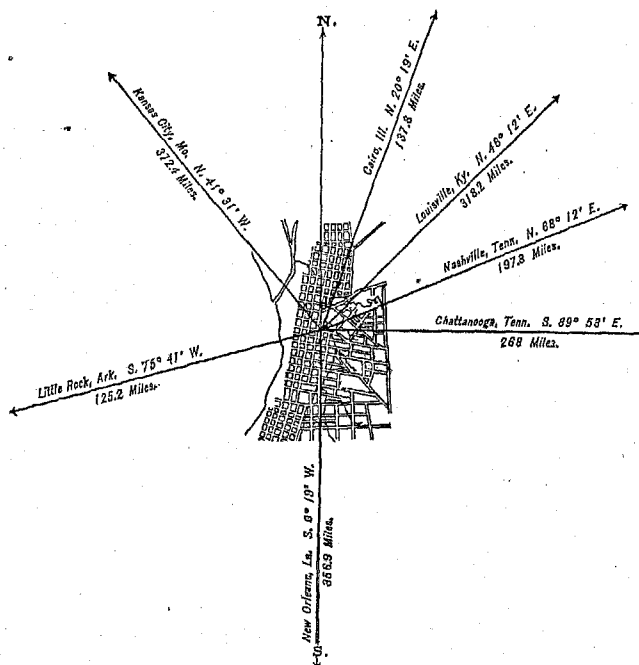
The following school statistics are for the school year ending July 31, 1879: The city owns 3 and rents 5 school-houses, having 29 rooms, and employs 6 male and 21 female teachers. There are of school age in the city 2,807 children, and of these are enrolled 1,837. The highest monthly enrollment is 1,552. The percentage of enrollment on enumeration is 74.82. The average number belonging is 1,170.90. The percentage of attendance on number belonging is 94.41. The estimated total value of school property is \$22,100.

MEMPHIS, SHELBY COUNTY, TENNESSEE.

POPULATION

IN THE
AGGREGATE,
1850-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	8,841
1860.....	22,621
1870.....	40,226
1880.....	33,592



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	16,302
Female.....	17,290
Native	29,621
Foreign-born	3,971
White.....	18,677
Colored.....	* 14,915
* Including 17 Chinese and 2 Indians.	

Latitude: 35° 8' North; Longitude: 90° 4' (west from Greenwich); Altitude: 220 to 280 feet.

FINANCIAL CONDITION:

Total Valuation: \$16,784,314; per capita; \$500 00. Net Indebtedness: \$4,554,355; per capita: \$135 58. Tax per \$100: \$1 79.

HISTORICAL SKETCH.(a)

Though one of the most modern cities of the United States, Memphis contains within its limits the oldest historic point in this country. Saint Augustine, Florida, was founded in 1566, and Santa Fé, New Mexico, in 1582; but before either had been dreamed of, the site of Memphis had become historic. De Soto had linked it with his name, for, in April, 1541, from the high bluff just below Memphis, he first saw the great river which was to make him famous, and was finally to be his grave. He took possession of the country in the name of Spain, calling the great stream "The River of the Holy Ghost". The site of Memphis was then occupied by an Indian village called

^a The material for the following "historical sketch" of Memphis as far as the year 1827 was kindly furnished by Colonel J. M. Keating, of that city, and only lack of space forbids the insertion of the sketch entire as it came from the author's hands.

Chisca. More than a century rolled away before the spot was again visited by a European, but in July, 1673, the famed Father Marquette landed at Chisca while on his journey down the Mississippi. He remained many days, ministering to the Indians. Returning later, he established a mission at Chisca; and Joliet, who accompanied him by order of Frontenac, then governor of Canada, established there a trading post, the last in a chain extending from Quebec along the Saint Lawrence, the great lakes, and the Illinois river.

These posts were maintained by the French with little risk, as the traders adapted themselves to the life of the Indians, sometimes intermarried with them, and always avoided any opposition to their prejudices. In 1680 Chisca was visited by Father Hennepin, and two years later La Salle took formal possession of the territory in the name of France. La Salle made a treaty with the Chickasaw Indians, and established a fort and cabins at the mouth of the Margot, now the Wolf, river. This was the first permanent military occupation by any European nation on the Mississippi. La Salle returned to Europe in 1683, and then came back to America with a company of 280 colonists, intending to reach fort Prudhomme, as he had called the fort at Chisca. But he missed the mouth of the Mississippi, and finally landed at Matagorda bay, Texas. In January, 1687, after great suffering and loss, La Salle started overland, with the few of his men still living, for fort Prudhomme, and had advanced as far as Trinity river when he was murdered by his desperate and despairing followers. While La Salle was still at Matagorda bay, Tanti, one of his lieutenants, came to fort Prudhomme, expecting to meet his commander there. After waiting as long as he could he departed, leaving a letter, which was opened thirteen years after—in 1699—by Iberville, the last of the noted French discoverers to visit Chisca.

After this, fort Prudhomme is but little heard of. It was a dull, sleepy place, the monotony of its life being only occasionally broken by the arrival of a new commander, an inspection of posts, the coming of a courier or of a missionary.

In 1722, Charlevoix, the Jesuit historian and traveler, stopped at fort Prudhomme on his way to New Orleans. He found the place peaceful and prosperous; but this peace and prosperity were not to last long.

The rapid spread of the English settlements alarmed the French government, and in 1726 orders were sent to Bienville, then governor of Louisiana, to occupy the interior and consolidate the posts. In pursuance of his orders, Bienville, an able and courageous man, directed D'Artagnette, who was in command of the posts along the Illinois river, to collect a large force and join him at fort Prudhomme. Bienville was delayed at Mobile, and D'Artagnette, reaching the rendezvous and impatient at the delay, engaged the Indians in a battle, in which he was utterly defeated and fort Prudhomme was destroyed. When Bienville approached he too was defeated, and returned to New Orleans with only the wreck of his army. Another expedition was organized, and in 1739 Bienville reached the site of the old fort and built a new one, which he called fort Assumption, near the ruins of the old. While encamped here his army was decimated by an epidemic of dengue, and he was finally compelled to make a treaty with the Indians, dismantle his fort, and withdraw, taking with him the settlers at Chisca, Arkansas Post, and Natchez.

The treaty of Paris of 1763, which put an end to the French and Indian war, transferred to England all the possessions of France east of the Mississippi; and the treaty of Versailles, twenty years later, which terminated the Revolution, in its turn transferred the title to this territory to the United States. The Indians refused to acknowledge their transfer to England, and the Spaniards, to whom the French had ceded the territory protected by fort Prudhomme in 1762, supported them in their refusal. Accordingly, in 1782, Don Gayoso, the Spanish governor of New Orleans, sent a force to occupy Chisca. Whether or not the Indians resisted them is not clearly known, but it was not until after a year that the Spanish took possession and erected fort San Fernando, ready to dispute the possession of the country and the free use of the Mississippi river.

The flood of American immigration was, however, extending westward with irresistible force, and at the very time when fort San Fernando was being built, John Rice, of North Carolina, full of confidence in the power of the United States to maintain its title, purchased from his state 5,000 acres of the land on which Memphis now stands. A fellow-citizen, John Ransey, followed his example, and purchased 5,000 acres adjoining and north of Rice's purchase. Both tracts were surveyed, one in 1786, while the Spanish flag was still waving over fort San Fernando. Rice was killed by Indians in 1791, while on a trading expedition, and his lands were thus placed upon the market. They were purchased in 1794 by John Overton, then a young lawyer, for himself and Andrew Jackson. Three years later, and a year after Tennessee had been admitted as a state into the Union (1796), Jackson sold three-fourths of his land to General James Winchester and his two brothers.

The claim of Spain to exclusive control of the Mississippi river was a source of constant annoyance to the settlers, and in 1795, by the treaty of Saint Lorenzo, the United States acquired free navigation of the river and the control of New Orleans for 10 years; and in 1803, by the Louisiana purchase, all the vast tract beyond the great river came into American possession. Immediately on notice of this, General Pike took formal possession of fort San Fernando, and unfurled the stars and stripes over fort Pike. In January, 1819, the cession of west Tennessee by the Chickasaw Indians was ratified by Congress, and in November the legislature of Tennessee organized Shelby county, and made Memphis, which had been laid out in the preceding May, the county-seat. The name "Memphis" was given, it is said, by Andrew Jackson. In 1825 the first religious congregation—Methodist—was organized; and in the following year Memphis was incorporated. This caused great surprise and

indignation, for it was alleged that the charter had been smuggled through the legislature and passed in the interests of the proprietors, to whom it secured most of the profits to come from the growth of the place. A public meeting was called, denunciation was indulged in, and finally an amendment to the charter, fixing limits to the city, was passed. This was ratified by the legislature in 1827, and in March the organization of the city was completed by the election of aldermen, who chose M. B. Winchester, one of their number, mayor.

Such was the beginning of the city of Memphis, now "The Taxing District of Shelby County". A census taken at the time of incorporation showed that the population had increased from the 53 of 1819 to 308. The trade of the new city was, of course, small, money was scarce, and cotton-gin receipts were as good as gold. In July a severe blow was dealt to Memphis by the removal of the courts to Raleigh, which then became the county-seat; and its misfortune was increased by an epidemic of dengue, or break-bone fever, precursor of the plagues that were to come.

In 1828 the yellow fever made its first appearance in the city and carried away 53 inhabitants, one-sixth of the entire population. Owing to the reputation for unhealthfulness thus acquired, and to the somewhat riotous character of the flat-boatmen who frequented the city, Memphis acquired a bad name, which her neighbors did not disdain to turn to their own advantage. Steamboats rarely tied up at its landings, preferring Randolph, a few miles above. Its growth was therefore slow for many years.

The situation of the city on the Mississippi and its excellent landing facilities, combined with the energy of the inhabitants, gained for Memphis importance in spite of its unhealthfulness. In twenty-two years the population had increased to 8,841, and by that time Memphis was the most important place on the river between Saint Louis and New Orleans. Large quantities of cotton came there for shipment, its trade with the surrounding country increased, and the United States government recognized the importance of the city by making it a naval station and building a large ropewalk there.

In 1860 the population was 22,621, an increase of 13,780 in ten years; but the civil war brought a period of great loss. Memphis was taken by the Federal forces in June, 1862, and was held by them during the rest of the war, except for a few hours in 1864. With the close of the war, the rapid growth began again, and the rate of increase established between 1850 and 1860 was fully maintained, as the census enumeration of 1870 showed a population of 40,226. Within the past ten years, however, misfortunes have come thick and fast upon the city. A considerable portion of its territory was set off in 1871-'72, and the population was thus diminished. A loss of this kind was, however, comparatively easy to bear, and had it not been for the frightful epidemics of yellow fever in 1873, 1878, and 1879, Memphis in 1880 would have shown a large increase in population and a larger one in wealth. Immediately after 1870 business was brisk and prosperity apparently assured. The number of bales of cotton received in the year 1870-'71 was larger than ever before in the history of the city, reaching a total of 511,432 bales, valued at \$39,552,356. This prosperous beginning of the decade was followed by another year of good trade, and an era of unexampled good fortune seemed to have begun, when it was suddenly checked.

In September, 1873, just as the great commercial crisis was beginning, a severe epidemic of yellow fever, small-pox, and cholera came upon the city. A panic ensued. The frightened people fled the city and the population was reduced to about 20,000; 7,000 cases of yellow fever were reported and 2,000 deaths. Cholera carried away 276 from 1,000 it attacked, and small-pox was very prevalent among the negroes. Five years later came the most terrible of all the many epidemics. The yellow fever raged with unprecedented violence. The people fled in terror until a quarantine was established and the 19,500 persons then in the city were compelled to remain. It would be vain to attempt to portray the sufferings in the city; 17,600 of the 19,500 left in Memphis were attacked by the disease, and 5,150 succumbed to it.

Roused at last to their danger, the citizens took energetic means to prevent a return of the plague. The city was built on land naturally saturated with water, and the filth accumulated in years by the disregard of all sanitary rules rendered this moist soil a constant source of disease, a perfect arsenal of the weapons of death. No health could be hoped for until this land was drained and the constant sources of pollution were removed. The national, state, and municipal boards of health co-operated in investigating the causes of disease and in recommending improvements. Finally (January, 1808) a system of sewers and one of drainage-tiles was begun, and up to the present time (September, 1880), 20½ miles of sewers and 30 miles of drain-tiles have been laid, soon to be extended to 30 and 50 miles, respectively. This has so far been attended with excellent results, although an epidemic of yellow fever occurred in 1879, during which there were 1,532 cases and 485 deaths. No epidemic has visited the place during the present year, and it is hoped that now Memphis is freed from the fearful visitations which have so often desolated her.

Although these epidemics injured trade greatly, the prosperity of the citizens was able to meet the strain, and the yearly receipts of cotton averaged 404,485 bales, and a large trade with the South and Southwest was maintained. The wealth of the citizens, however, did not imply that the city corporation was financially sound. The debt of the city had increased to such an extent that it was impossible to meet the demands of creditors. The latter were accordingly about to take legal steps to obtain possession of the city property, when the citizens, to avoid paying their just debts, petitioned the legislature to deprive them of their charter as a city. This the legislature consented

to do, and the city of Memphis no longer exists. What was once a proud city is now organized as "The Taxing District of Shelby County", in accordance with an act of the legislature passed January 29, and approved January 31, 1879.

Cotton is the staple in the trade of the taxing district, which by courtesy still retains the name of Memphis, and during the present year 409,809 bales, valued at \$23,752,529, have been handled by its merchants. The banks are in a prosperous condition; the deposits for the 10 months from November, 1879, to August, 1880, averaged \$3,268,303, and the clearings for the 8 months up to August averaged \$3,593,479 38. The total amount of foreign capital invested in insurance companies represented in Memphis is \$157,642,000, while the local capital amounts to \$866,850. The city is a distributing center for dry-goods, machinery, flour, etc., for a wide district throughout the South and Southwest, and it hopes soon to become a leading manufacturing center. Already it has prosperous machine-shops and other manufacturing establishments.

MEMPHIS IN 1880.(a)

The following statistical accounts, collected by the Census Office, indicate the present condition of Memphis:

LOCATION.

Memphis is situated in latitude 35° 8' north, longitude 90° 4' west from Greenwich, on the east bank of the Mississippi river, just below the mouth of the Wolf river. The lowest point is 220, the highest 280 feet above the sea-level. The draught of water in the river at the city is 75 feet at low water; the river is 3,000 feet wide, and the improved (paved) landing is 3,600 feet long by 500 in width. Water communication is open with all the vast region reached by the great river and its tributaries.

RAILROAD COMMUNICATIONS.

The Memphis and Charleston railroad connects the city with Chattanooga, Tennessee, the eastern terminus; the Mississippi and Tennessee railroad with Grenada, Mississippi; the Memphis and Little Rock railroad with Little Rock, Arkansas; the Louisville and Nashville railroad with Louisville, Kentucky, and Nashville, Tennessee; and the Memphis, Paducah, and Northern railroad with Paducah and Trimble, Kentucky.

TRIBUTARY COUNTRY.

The country immediately surrounding the city is entirely devoted to agriculture, cotton being the staple product, although large quantities of early fruits and vegetables are raised for the northern markets.

TOPOGRAPHY.

The city is situated on a bluff of the Tertiary period known as the "fourth Chickasaw bluff", with underlying sandstone. The natural drainage is good, as the city is higher than the surrounding country. There are no marshes or lakes. The country within a radius of 5 miles is partly wooded.

CLIMATE.

The highest recorded summer temperature is about 103°, the highest temperature in average years being 98°. The lowest recorded winter temperature is 3°, the lowest in average years being 20°. The climate is not influenced by adjacent marshes, or elevated lands.

STREETS.

The total length of the streets of Memphis is 70 miles; of this, 5½ miles are paved with stone blocks, 5 miles with broken stone, and 2 miles with wood; the rest of the streets are unpaved. The cost per square yard of the stone-block pavement is \$2 25; of the broken stone, \$1 50; and of the wood, \$3 80. The cost of keeping them in repair is 5 cents per square yard per annum. The wooden pavement is kept clean with most ease, broken stone coming next, and stone blocks last; while in permanent economy and quality stone blocks take the lead, followed by wood and broken stone. The sidewalks are of brick and plank, principally brick, and the gutters are generally of stone, though occasionally brick gutters are found. Trees are planted along a few of the streets. The estimated annual cost of repairs on the streets, including the maintenance of bridges and culverts, is \$30,000. Paving is generally done by contract, repairing by day labor.

^a The unusually complete answers to the schedule of interrogatories in regard to the present condition of the city are due to C. L. Pullen, esq.

There is one horse-railroad company; this has 15 miles of track, 80 cars, and 250 horses and mules, and employs 150 men; the rate of fare is 5 cents. Omnibuses ply between the depots and landings; 30 vehicles and 100 horses are in use; the number of men employed is 30, and the rate of fare is 25 cents.

WATER-WORKS.

The city is supplied with water by a private corporation. The total cost of the water-works, which are on the Holly system, was \$650,000. Water is taken from Wolf river; the pressure per square inch averages 45 pounds. The amount pumped daily varies from 2,000,000 to 5,000,000 gallons. No further information could be obtained from the officers of the company.

GAS.

The gas supply is obtained from a private corporation, which refused to give any detailed information as to the average daily production, annual income, etc. The charge per 1,000 feet is \$3, and the city pays \$27 a year for each of its 580 gas street-lamps.

PUBLIC BUILDINGS.

The buildings owned by the city and used in whole or in part for municipal purposes, include 5 steam fire-engine houses, a police-station, and a city hall, together valued at \$100,000. The present value of the city hall is \$20,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There are several small parks in the center of the city, nicely laid out and carefully kept. The total area is about 4 acres. They were gifts to the city, and are controlled by the city government.

PLACES OF AMUSEMENT.

Leubrie's theater and Greenlow's opera-house, each seating about 2,500, are the only theaters in the city. They pay an annual license of \$500 to the city. Memphis Club, Männerchor, Tennessee Club, and Assembly halls, each of which has a seating capacity of about 1,000, are used for concerts, lectures, etc. There are a few beer-gardens outside the city limits.

DRAINAGE.

The natural drainage of Memphis, with the exception of a very small portion which has an inclination toward the Mississippi, is discharged into a deep-cut bayou—bayou Gayoso—which empties into Wolf river about half a mile from its outlet. The inclination of the surface toward the bayou and its various branches is uniform and somewhat rapid.

At the ordinary stages of the Mississippi, the bayou discharges at shallow depth, and its bottom is mainly exposed. During high stages of the river, usually from May to July, and occasionally at other seasons, the water sets back in the bayou quite half-way through the city, and toward Wolf river it overflows wide areas, including some built-up districts where the houses stand on piles, and only artificially graded streets are above the level of the water.

Prior to 1880 there had been built only about 4 miles of sewerage, mainly 12- and 15-inch pipes, in the compactly built business portion of the town, laid at the cost of private individuals. All surface-water was delivered through the gutters to the bayou or to the river. In the better-built streets these gutters were of brick, nearly semi-circular, and with a width of several feet, being bridged for a foot-way in front of each house. The population along and near the bayou delivered its entire filth, including excrementitious matters, over the bank of the stream or into its flood, according as its water might be high or low. A large proportion of the household wastes were discharged through gutters, also into the bayou, which was thus made to constitute an inexpressibly foul and objectionable slough through the heart of the city, and in many cases adjacent to its most fashionable quarters.

The devastating epidemic of yellow fever in 1878, succeeded in 1879 by another epidemic, which was prevented from assuming like proportions largely by the removal into camps outside of the city of nearly the whole susceptible portion of its population, and which still found about 500 victims, led to the adoption of more active measures than had hitherto been carried out for the permanent improvement of the city. At the request of the authorities the National Board of Health appointed a special committee to advise as to permanent improvements. This committee consisted of Doctors Billings, Mitchell, and Johnson of the national board. To these were joined Major Benyaund, United States Engineer, Dr. C. F. Folsom, secretary of the Massachusetts board of health, and G. E. Waring, jr., civil engineer. A thorough investigation of the condition of the city was made, including a careful house-to-house inspection conducted by Dr. F. W. Reilly, and a chemical examination of the various sources of water-supply by Dr. Charles Smart, U. S. A. The following is a summary of the recommendations made by this committee:

First. That the "superintendence and subsequent care of the sanitary work" be placed in the hands of a thoroughly competent sanitary officer, independent of politics, to direct "a large amount of sanitary work to be done in Memphis, the details of which must be left to a great extent discretionary, in order to secure the best results without unnecessary expense".

Second. The ventilation and chilling of all houses occupied or unoccupied, extending the process to the contents and interiors of trunks, boxes, bureau-drawers, bedding, carpets, clothing, etc.; also the destruction by fire of much material accumulated in junk-shops and in the hands of second-hand dealers.

Third. "That the city should have control of the water-works, at least to such an extent as to insure that a sufficient amount of water for sanitary purposes shall at all times be at the disposal of the city."

Fourth. That a large number of houses, including some large buildings in the heart of the city, "should be condemned, torn down, and the material destroyed by fire".

Fifth. "That all privy-vaults now in the city should be cleaned out and filled with fresh earth, and that hereafter no system of dealing with excrement should be permitted which involves pollution of soil, water, or air. In those portions of the city so thickly settled as to warrant it, there should be introduced a system of sewerage to discharge into the Mississippi river upon a plan substantially as recommended by Colonel Waring. These recommendations include a system of subsoil drainage, discharging into the bayous and into the river."

Sixth. "That the bayous, with a sufficient strip of ground on each side to insure their control and freedom from pollution, should be made the property of the city for securing drainage and as a public park, the banks being properly grassed and a constant stream of clear water being secured. The backing up of high water from the river into the bayou should be prevented by means of a dam, in connection with which must be provided pumping-machinery to dispose of the ordinary flow during such period of high water."

Seventh. A modification of building regulations, under proper control. "All uncondemned buildings whose lower floors are less than 2 feet from the ground should be raised to that height as soon as possible."

Eighth. This section refers to the removal of garbage and other sanitary details, and their control by the sanitary officer recommended in the first section.

Ninth. "With the exception of those devoted to heavy traffic, it is advised that all streets should be constructed of Paducah gravel, laid on a properly shaped road-bed, after the subsoil drains have been established, and that the gutters and curbs should be made of concrete."

Tenth. "Few places possess greater natural advantages than the city of Memphis for drainage, removal of excrement, garbage, etc., to secure that healthfulness so necessary to commercial prosperity."

The report closed with these words:

We believe that by carrying out the above recommendations, and by availing itself fully of what is now known as to the causes of the disease and the methods of avoiding or destroying these causes, Memphis may soon become one of the healthiest cities in the valley of the Mississippi.

In 1868 Memphis, feeling the influence of the remarkable prosperity which succeeded the war, employed engineers for the preparation of a complete plan of sewerage. This plan consisted of a network of large, storm-water sewers, varying in size from 12-inch pipe to a 7-foot main sewer. It was estimated that the construction in accordance with this plan, and its extension to the streets of the city as they were built up in 1880, would have cost from one to two million dollars. It was evident to the committee, as it was to the authorities of the city, that in the existing bankrupt condition of Memphis it would be impossible to expend any thing like this sum.

After a long and careful discussion, participated in by the engineer who had made the plan above described, it was decided to recommend the adoption of Waring's plan, the controlling arguments being, first, the necessity of great economy; second, the fact that sufficient provision had already been made for the removal of storm-water; third, the belief that nothing short of daily flushing would maintain such condition of the sewers as to overcome entirely the "sewer-gas" difficulty; fourth, the especial disadvantage, in such a climate, and in a city subject to the epidemics of yellow fever, of the foul catch-basins to check the introduction of street-dirt into the sewers; fifth—and this was really the foundation of the recommendation—the absolute demonstration, resulting from investigations made under the direction of the National Board of Health in connection with the sewers of New York, Providence, Rhode Island, Burlington, Vermont, Milwaukee, Wisconsin, Poughkeepsie, New York, Taunton, Massachusetts, and Saint Louis, Missouri, of this fact: A 6-inch sewer, with only a moderate inclination, has a sufficient capacity of discharge for the satisfactory removal of the sewage of a population of over 2,000 persons.

The leading element of the system of sewerage adopted is a sewer of vitrified pipe, 6 inches in diameter, with absolutely tight joints, and with house branches 4 inches in diameter, extended for as great a length as the number of the population to be served indicates as feasible, and having at its upper end a flush-tank of about 2 hogsheads capacity, discharged by an automatic siphon, and fed by a constant small stream from the public water-supply, to the end that solid matters stranded along the upper portions of the sewer, where the natural flow contributed by the few house-drains is insufficient for their removal, may be swept away at least once in 24 hours, before their putrefaction shall have begun, and delivered into a constant stream of sufficient capacity for their removal. This is the essential basis of the system adopted. Little by little, as these sewers increased in length, or as different sewers came together, the size of the pipe was increased to 8, 10, 12, and 15 inches diameter, two main sewers, one of 12 inches and the other of 15 inches, finally uniting in a circular brick sewer 20 inches in diameter. As the soil of Memphis is a wet one, needing drainage, ordinary agricultural drain-tiles were in all cases lain in the same trench with the sewer, and were generally made to discharge independently into the bayou.

Notwithstanding the provision made for the constant cleanliness of the sewers, it was thought that permanent and efficient ventilation should be a prominent feature of the plan. It was therefore provided that every house-drain should be extended through an open-mouthed soil-pipe of not less than 4 inches diameter to the top of each house served, and that there should be nowhere in the course of this house-drain and soil-pipe any trap, contraction, or other obstruction to the free movement of the air. This to the end that under the varying influences of different winds, of different exposure to the rays of the sun, and of the different temperature of the buildings through which the soil-pipes passed, there should be maintained a constant movement up or down through these various pipes. It was found in practice that the ventilation of the sewers is greatly facilitated by the discharge of the flush-tanks, this discharge passing through the pipes with a sufficient volume to force the air before it and to establish a partial vacuum behind it, so that, as each wave moved forward, the soil-pipes in front of it became outlets for the sewer-air, and those behind it inlets for fresh air. The further provision was made in the original plan that there should be constructed at the lower end of each branch sewer a fresh-air inlet, opening to the surface of the street; this serving also as an inspection-hole to observe the flow of the sewers. As the work went rapidly forward, the construction of these fresh-air inlets was postponed, and a subsequent inspection of the sewers from which they had been omitted showed that they were not necessary to the maintenance of a complete ventilation; only some half a dozen of them in all were built, and these have been chiefly useful in enabling the inspectors to determine the rapidity and regularity of the flow, the efficiency of the capacity of the sewers, and the rapidity of movement of the discharge from the flush-tanks, experimental requirements which have been sufficiently satisfied by the small number of inlets constructed. It was found as the work went on that it was entirely safe to continue the sewers of a diameter of 6 inches, even through closely built streets, for a length of about 3,000 feet. The indications are that, so far at least as the branch sewers are concerned, they will never run more than half full, even during the hours of greatest use (from 8 to 11 in the morning), except momentarily, during the discharge of the flush-tanks.

In the construction of the work it was found that many of the lines crossed the beds of old branches of the bayou which had been filled with all manner of rubbish, and which afforded a most insecure foundation for the laying of the pipes. In such places the device was adopted of supporting each pipe on the ends of two board piles driven to a firm holding, and sawed out to fit the exterior circumference of the pipes. This was found in all cases to be a successful device. In one instance, where the ground was of such unstable character that the pipe-layers sank to their knees in the bottom of the ditch, subsequent examination showed the pipes to be undisturbed, the ground to the level of their bottoms having become perfectly solidified by the action of the adjoining tile-drain.

The flush-tanks used in the Memphis sewerage are the invention of Rogers Field, an English engineer of eminence, and are patented to him in this country. They are fed by a small, constant stream from the water-works supply, sufficient to fill them (112 gallons only) once or twice in 24 hours. They are discharged by an annular siphon, which becomes sealed against the outer atmosphere when they begin to overflow. The dripping through the inner limb of the slight stream added to the tank removes little by little the confined air, causing the flow to increase gradually until it becomes sufficient to exhaust all of the air and cause the contents of the tank to be discharged with great rapidity (in from 35 to 45 seconds).

Observations made on a sewer running eastward from the Court Square showed that when the tank discharged, the sewer was filled nearly half full with a very strong and rapid stream at the fresh-air inlet, about 1,000 feet down the line.

More because of the need for great economy than because of other considerations, the construction of manholes and lamp-holes and lateral sewers was entirely omitted; except at the few fresh-air inlets, no provision was made for inspecting the condition of the interior of the sewer. Experience has demonstrated great advantages resulting from this omission. Openings into the street, of whatever character, greatly enhance the likelihood of the admission of substances large enough to obstruct such small pipes. And with such small pipes the efficiency of manholes in removing obstructions is much less than it would be with even 12-inch sewers. As at present arranged, nothing can enter the sewer which does not reach it through a 4-inch house-drain. The work was carried out with the assumption that, ordinarily, whatever had passed through this drain would be swept forward in the 6-inch sewer by the discharge of the flush-tank. This assumption has thus far been well sustained, but few obstructions having occurred. Where these have occurred they have been easily located by the failure of the house-drain above them to discharge, and have been quickly and cheaply removed by excavation from the surface.

It is usual, where manholes are used, to build the sewers in straight lines vertically and laterally between these, so that their condition may be inspected by sighting a lantern through them, and to confine the curves needed for a change of direction to a very short area of the bottom of the manhole. In Memphis, as this restriction is not imposed, all corners are passed on curves of large radius, so that the lessening of the flow due to change of direction is reduced to the minimum.

Ground was broken for the work on the 21st of January, 1880, and at the beginning of June about 18½ miles of sewers had been laid, and the high-water outlet into Wolf river had been completed. Practically the whole city between the west main and the Mississippi had been sewerred, and the branch main on the east side of the bayou, with some of its laterals, had been laid.

The improvement, as recommended to be carried out by the committee, and as adopted by the local authorities, includes a dam across Gayoso bayou, at Second street, with a flood-gate for the discharge of the waters of the bayou during low stages of the Mississippi. The purpose of the dam is to exclude the back-water of the high river, the flow of the bayou at such times being removed by a steam-pump. The completion of this part of the work will not only prevent the overflow and saturation of large areas of land bordering the bayou, but will also make it possible to extend the sewerage system to a large population whose houses are too low for connection with the main gravity outflow. The high-water outlet into Wolf river was first constructed because requiring less time in its execution, and as affording an immediate outlet for the flow. At ordinary stages of the river the entire flow will be delivered through a 20-inch iron pipe delivering into the Mississippi about half a mile below the high-water outlet, and at a point where the natural currents will carry the sewage away from the shore.

HOUSE-DRAINAGE.

Up to the time when the work above described was undertaken, the only method adopted for the disposal of household wastes was to deliver excrementitious matters into vaults and to discharge house-water into the street-gutters, or, more commonly, to flow it over the surface of the back yard. Some of the vaults were curiosities. In the business parts of the town they were excavated in the cellars, and were carried down to the level of the water-bearing stratum, sometimes 30 feet below the cellar-bottom. These served for a long time for the complete disposal of all that was delivered into them; but little by little their outlets became clogged, and they gradually filled nearly to the surface. They were then but slightly excavated, their upper portions being filled with earth, and a fresh pit being dug near by. In one case there were five of such accumulations of fecal matter in the cellar of a single house.

In connection with isolated houses, the ordinary privy-vault was constructed.

When the sewerage improvement was undertaken, the power of the local authorities being absolute, a rigid rule was enforced, not only compelling every house to connect with the sewers, but requiring that the connection be made under the supervision of the proper officer, both with reference to the laying of the main drain and the erection of the untrapped soil-pipe above referred to, but controlling every portion of the plumbing work. Memphis is probably at this time (1880) the only city in the world in which the use of the pan water-closet is prohibited, it being required that no water-closet shall be used which has an unventilated space of more than 100 cubic inches capacity between two water-seals.

While there is no trap on the main drain or soil-pipe, it is of course required that every fixture in the house shall be separated from these by its own trap, placed as close as possible to the fixture. Before the final connection with the sewer can be made, every part of the system must be approved by the inspecting engineer in charge of all such work. It is too early to determine with certainty what is to be the future of this system of sewerage, and much too early to determine its influence upon the sanitary condition of Memphis. In itself as it stands, it is to be regarded only as an experiment in sewerage. Its influence on the public health will hardly be perceptible until it shall have been extended not only to all of the higher-lying parts of the city, but equally to those portions to which it can be applied only after the exclusion of the Mississippi floods from the bayou, after the attendant purification of the bayou, and after the carrying out of the other sanitary recommendations of the National Board of Health committee, as recited above, including especially the completion of the outlet to the Mississippi river, and the consequent removal of the sewage from the vicinity of the intake of the water-works.

CEMETERIES.

There are 4 cemeteries connected with the city:

Jewish Cemetery, area 3 acres, situated a little beyond the city limits, about a mile from the center of the city.

Saint Peter's Cemetery, Catholic, quite near the Jewish cemetery.

Elmwood Cemetery, on Broadway, 2 miles from the city center, and beyond the limits, containing 100 acres.

A negro cemetery, neither the area nor location of which was furnished.

There are 2 other cemeteries within the city, in which interments are no longer allowed: *Winchester Cemetery*, situated on Winchester avenue, in the eastern part of the city, has an area of 10 acres. *Catholic Orphan Cemetery* contains 3 acres.

No information as to the number of interments in these cemeteries was furnished. A permit must be obtained before any burial will be allowed.

MARKETS.

Memphis has 2 markets, each of which cost about \$6,000, contains 50 stalls, and controls a space of about 10,000 square feet used by farmers and hucksters as wagon-stands. The stalls rent at from \$5 to \$80 per annum. The total annual rental was not furnished. The markets are each under the charge of a market-master appointed by the legislative council, and are opened in winter from 5 to 9 p. m. and in summer from 4 to 10 a. m. The

ordinances of the city require all dealers in fresh meat, fish, and vegetables outside the markets to pay an annual license, and prohibit the opening of new stores within one-fourth of a mile from the markets. About one-third of the retail supply of meat, fish, and vegetables is obtained in the markets.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief health organization of Memphis is a board of health, appointed by the legislative council, but independent in its action. It consists of the president of the taxing district *ex officio*, the chief of police, a secretary, who must be a physician, a health officer, and a physician. It meets when called together by the president. The board was organized in 1879, and its annual expenses have been \$20,000, incurred in the inspection and cleaning of streets and the removal of garbage. A very large amount of work was done in removing accumulations of filth created in past years, and in cleaning and filling up privy-vaults. Assistance was also given to the city engineer in removing the Nicholson wood pavement. From these causes the total expenses of the board from February, 1879, to November, 1880, amounted to \$35,108 51. In case of an epidemic the board seems to have the power to increase its expenses to any necessary amount. Its authority, both during and in the absence of an epidemic, is ample to meet all the requirements of sanitary science. The board constantly employs 3 assistant health officers and inspectors, and can at any time employ as many more as it deems necessary. The entire police force is at its disposal. All these assistants are members of the police force and retain their police authority, while any member of the board has power to enter and examine any premises. Inspections are made regularly in all parts of the city.

NUISANCES.

When nuisances are found or reported, an inspection is made, and orders are issued to the owner, occupant, or agent of the property to remove or abate it within a reasonable time. If this order is disregarded, the person so disregarding it is liable to a fine of not less than \$5 nor more than \$50, and the abatement or removal is made at once by the health officer, all expense so incurred being collected from the estate by the attorney of the city. The list of nuisances includes every thing, except disease, which may be an injury to the public health or a cause of offense to the citizens. Defective house-drainage, cesspools, etc., are treated as nuisances. Defective sources of drinking-water are inspected and ordered to be cleaned, while, if it seems impossible to render them safe, they are filled up and a supply of drinking-water is obtained in some other way. In cases of defective sewerage and street-cleaning, the board calls the attention of the proper officers to the defects, or in some cases makes the necessary changes itself.

GARBAGE.

The board has full control of the removal and conservation of garbage, prescribing the manner in which it shall be kept and the method of its removal. A detailed account of the regulations will be found under the heading "Removal of garbage and ashes" in the account of "Municipal cleansing".

BURIAL OF THE DEAD.

No interment is allowed until a burial permit has been obtained of the board of health. The application for a permit must be accompanied with a certificate of death signed by the attending physician or by some competent person, and this is placed on file at the office of the board. All sextons or other persons having charge of any burial-ground, tomb, or vault must make a weekly return of all burials coming under their charge.

INFECTIOUS DISEASES.

The regulations in regard to infectious and contagious diseases are very strict, care being taken to guard against all possible means of introducing or spreading them. Street-cars are forbidden to have cushions on the seats or backs of seats; the introduction of infected persons or articles is prohibited; the contents of privies and cesspools must be disinfected when removed; and buildings the sanitary condition of which is bad are torn down, and the construction of new ones is forbidden unless sanitary rules are observed. A quarantine can be established at any time by the board of public works on the recommendation of the board of health, and the legislative council may declare what boats and persons, and from what points, shall be subject to quarantine regulations. Boats from such infected places must stop at the quarantine grounds and be thoroughly inspected, and, if necessary, passengers or cargo must be removed to the places provided for infected persons or goods. A permanent quarantine station is established on President's island, a number of miles below the city, and here all steamers passing up the river are stopped and inspected. Infected goods are removed to the island and disinfected, and persons who are infected or who have been exposed to disease are retained there, although no one not absolutely sick may be detained at the station more than ten days. Any attempt to pass the station without stopping for inspection is a misdemeanor, and the captain, mate, engineers, pilots, and clerks of the boat so passing are arrested and fined.

Small-pox patients are removed to a small-pox hospital on the river, 4 miles below the city. In some cases, however, they are quarantined at home, and the house is placarded to warn passers of danger. Scarlet-fever patients are quarantined at home, and the house is placarded, and care is taken to prevent the spread of the disease. If contagious diseases make their appearance in the schools, the pupils from infected families are forced to absent themselves till all danger is passed. Should the case demand it the schools are closed. Vaccination is compulsory and is done at the public expense. All persons knowing the existence of any contagious, infectious, or malignant disease are required to report it to the board of health.

The registration of births, diseases, and deaths is in charge of the board of health, to which all births, diseases, and deaths must be reported.

REPORTS.

The board reports monthly to the legislative council, and these reports are published. An annual report is also published.

MUNICIPAL CLEANSING.

Street-cleaning.—Each householder is compelled to clean the streets and alleys, sidewalks and gutters adjoining his premises as far as the middle of the street or alley, placing the refuse in piles in the middle of the way, where it can be collected by the city's force. The work is done entirely by hand. The collection is under the charge of the board of health, which, from February 1, 1879, to November 30, 1880, expended \$4,382 16 in this work. The annual cost to private persons is estimated at \$2,000. The ordinances require the streets to be cleaned twice in each week; in practice, the work is done only when necessary. The sweepings are deposited on board a boat prepared to receive them, which finally empties them into the Mississippi below the city.

Removal of garbage and ashes.—The board of health has full control of the removal of garbage and ashes. Garbage, while awaiting removal, must be kept in suitable and sufficient boxes, barrels, or tubs, capable of holding, without being filled to within 4 inches of the top, the accumulations of 36 hours. They must be placed within the grounds of the householder, and can be allowed on the sidewalks only for such a time as is needful for the removal of the contents. Ashes must be kept in vessels either entirely of metal or lined with metal, and must not be mixed with garbage. The removal of garbage is made in tight carts, which must not be so loaded as to spill the contents. Both ashes and garbage are dumped into the boat which receives the street-sweepings, and are thrown with them into the river. The cost of the service in 1880 was \$8,636 61.

Dead animals are removed by a contractor under the direction of the board of health. The annual cost is stated at \$240.

Liquid household wastes.—Chamber-slops and kitchen and laundry wastes are disposed of alike, nearly all going into the public sewers. No wastes are allowed to run into the street-gutters, and only very little goes into cesspools, which are fast being abandoned and filled up. The few that remain are cleaned when full by the odorless-excavator process, and the contents thrown into the Mississippi river.

Human excreta.—Three-fourths of the houses in the city are provided with water-closets, all of which empty into the public sewers. The board of health has enforced the ordinances of the city which require that all privy-vaults shall be cleaned out and filled up. During the period of transition from privy-vaults to water-closets, the dry-earth system was in use, the city ordinances requiring that instead of privy-vaults a water-tight receptacle, holding from three pecks to a bushel, should be let in under the privy-seat and the contents covered at least once a day with dry earth or dry ashes. Once in every two weeks at least, the contents of these receptacles were removed. All vaults were required to be filled up by April 1, 1880, but a few are still left. None of these are absolutely water-tight, though nearly all are walled with bricks. They are cleaned in the same manner as cesspools, and the night-soil is thrown into the Mississippi.

Manufacturing wastes.—No information in regard to the disposal of manufacturing wastes was furnished.

POLICE.

The police force is appointed and governed by the board of fire and police commissioners. The chief executive officer is the chief of police, whose salary is \$125 a month and whose duty is the general supervision and management of the force. The rest of the force consists of 2 captains, salary \$90 a month each; 2 sergeants, salary \$80 a month each; and 37 men, salary \$60 each per month. Not all the latter are patrolmen; 2 are detectives, 2 market-keepers, and 3 sanitary inspectors. The uniform is of blue cloth with brass buttons. Each man supplies his own uniform, except the star and buttons, and purchases his arms, which consist of a baton and a revolver. The men are on duty twelve hours each day, and patrol 65 miles of streets. No record of the number of arrests, of the amount of property lost or stolen and reported to the police, or of the number of station-house lodgers was furnished. The force is expected to co-operate with the fire and health departments; each patrolman is a sanitary officer. Special policemen are appointed by the board of fire and police commissioners, and while on duty are treated as regular members of the force. The total cost of the department from February 1, 1879, to November 1, 1880, was \$58,533 31; the annual expense is about \$35,000.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Memphis for 1880, being taken from the tables prepared for the Tenth Census by William A. Hill, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries.....	138	\$2,813,975	2,130	69	69	\$345,672	\$2,419,341	\$4,413,422
Boots and shoes, including custom work and repairing	3	5,000	12	.....	.....	4,800	3,376	10,600
Bread and other bakery products	7	16,800	33	.....	1	10,650	37,200	68,000
Carpentering	5	12,750	29	.....	.....	17,300	20,700	64,500
Carriages and wagons (see also Wheelwrighting).....	6	173,400	158	2	1	51,250	55,250	176,500
Clothing, men's	8	32,100	85	39	.....	63,600	65,000	175,500
Confectionery.....	5	32,500	53	3	2	18,050	110,500	160,000
Foundry and machine-shop products	9	140,800	189	2	9	83,114	91,274	252,400
Lock and gun-smithing	5	4,600	9	.....	1	4,150	3,300	11,200
Lumber, sawed	5	108,000	106	.....	2	22,500	212,400	300,600
Marble and stone work	6	22,200	26	.....	.....	9,100	12,150	38,900
Oil, cottonseed and cake	5	535,000	415	2	18	120,000	550,000	835,000
Painting and paperhanging	3	13,500	20	.....	.....	5,653	7,800	20,500
Plumbing and gasfitting	6	17,400	58	.....	6	19,500	30,400	73,000
Printing and publishing	4	92,000	101	6	5	67,246	52,939	165,714
Saddlery and harness	4	17,950	39	.....	.....	18,400	35,450	75,020
Tinware, copperware, and sheet-iron ware	10	104,500	88	10	.....	42,899	99,500	203,000
Upholstering	4	55,000	22	3	.....	11,445	7,308	34,000
Wheelwrighting (see also Carriages and wagons).....	5	1,400	16	.....	.....	3,500	2,200	7,700
All other industries (a)	38	836,075	605	2	24	272,515	1,014,094	1,741,228

a Embracing agricultural implements; blacksmithing; bookbinding and blank-book making; brick and tile; brooms and brushes; cars, railroad, street, and repairs; clothing, women's; corsets; cotton compressing; cotton goods; cotton-ties; flouring and grist-mill products; furnishing goods, men's; liquors, malt; looking-glass and picture frames; lumber, planed; masonry, brick and stone; mineral and soda waters; musical instruments and materials (not specified); photographing; sash, doors, and blinds; scales and balances; sewing machines and attachments; shipbuilding; slaughtering and meat-packing; soap and candles; stencils and brands; stone and earthen-ware; tobacco, cigars and cigarettes; and trunks and valises.

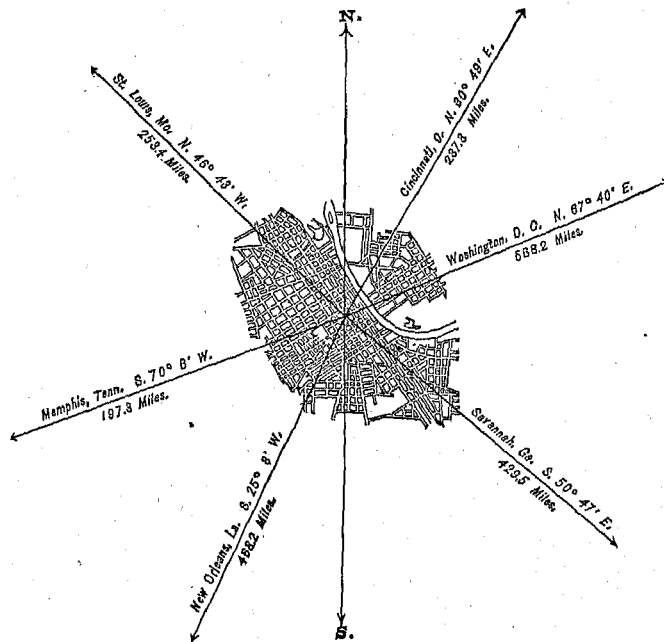
From the foregoing table it appears that the average capital of all establishments is \$16,767 93; that the average wages of all hands employed is \$372 87 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$24,665 59.

NASHVILLE, DAVIDSON COUNTY, TENNESSEE.

POPULATION

IN THE
AGGREGATE,
1800-1880.

	Inhab.
1790.....	.....
1800.....	345
1810.....	.....
1820.....	.....
1830.....	5,566
1840.....	6,929
1850.....	10,165
1860.....	16,988
1870.....	25,865
1880.....	43,350



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	20,912
Female	22,438
Native	40,325
Foreign-born	3,025
White	27,005
Colored	*16,345

* Including 6 Chinese and 2 Indians.

Latitude: 36° 9' North; Longitude: 86° 47' (west from Greenwich); Altitude: 500 feet.

FINANCIAL CONDITION:

Total Valuation: \$13,336,760; per capita: \$308 00. Net Indebtedness: \$1,606,200; per capita: \$37 05. Tax per \$100: \$3 00.

HISTORICAL SKETCH.(a)

Previous to 1780, hunters from the Watauga settlement in East Tennessee came into the Cumberland country on trading and exploring expeditions. Among those who came in the spring of 1779 were James Robertson, Kasper Maуска, and several others, who planted a field of corn in what is now known as North Nashville, for the use of the colonists they intended to bring into the country the ensuing fall and winter. The whole country to the north, and as far south as the Tennessee river, was free from any settled tribe of Indians, though previously large numbers of red men had lived there, as the burial-places all around the city testify. Thousands and thousands of Indian graves have been opened or plowed over by the farmers in the neighborhood. The Indians made this part of the

a Prepared for the Tenth Census by Anson Nelson, esq.

country, as well as the present state of Kentucky, a common hunting-ground. Robertson made up a party in the Watauga settlement, to come by land; while John Donelson formed another party a little later, to come by water, and to bring the women and children of some of those who had gone with Robertson. The water-route was long, almost unknown, and full of dangers. The party traveling by land met a band of Virginian emigrants, under the leadership of John Raine, *en route* for Kentucky, whom they urged to join them. This was done, and the two bands reached the present site of Nashville in the latter part of 1779 or in the first part of 1780, the cattle and wagons being taken across the river on the ice. This winter is known as the *cold winter*, the temperature not having fallen so low here since then. Soon after this another company arrived from North Carolina, making the total number of persons at this point about 200. On the 24th of April, 1780, the Donelson party landed, and, several small stations having been established in the surrounding country, it was decided to make the Nashville station a headquarters. The settlers found here a French trading-post that had been established as early as 1710, and the "lick" at this place, where the buffalo and other wild animals obtained the saline nutriment they required, was therefore called the "French Salt Lick". This lick is within the present city limits, and adjoins the sulphur spring, whose waters are well known. These early settlers found a land of surpassing beauty and richness of soil. The trees of the forest were large and of almost endless variety, with a luxuriant undergrowth of cane. The woods were full of game. The streams abounded with fish, and in winter the water in the vicinity was covered with wild fowl.

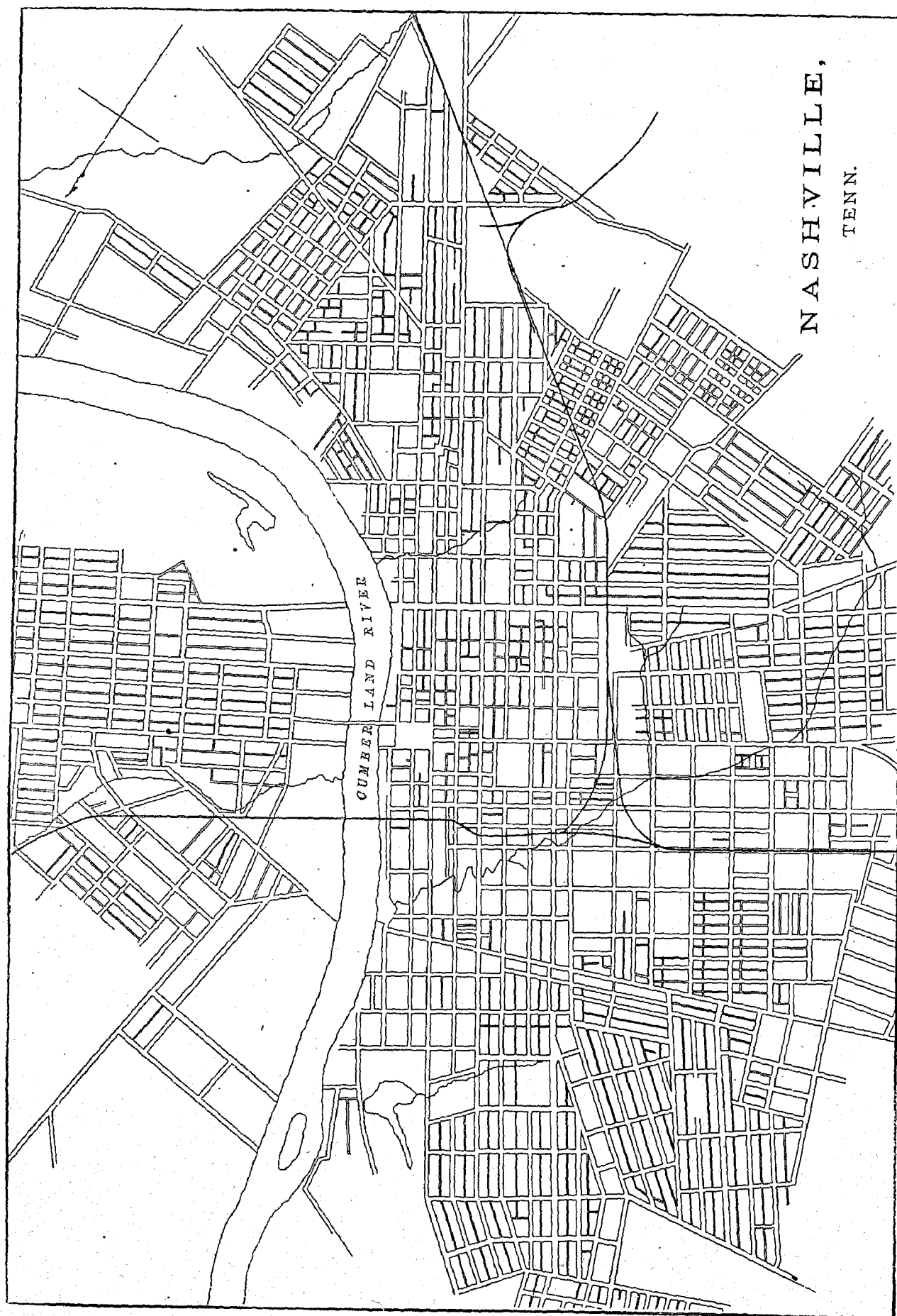
On the 1st day of May, 1780, the different stations entered into a compact for their protection and government. The parent government of North Carolina was too far off to attempt any exercise of her guardian care. The compact or form of constitutional government established a court known as "judges, general arbiters, or triers", who had power to punish crime, to aid the needy, to assess fines, to regulate military defenses, land entries, etc.

The Indians on the south and west soon became jealous of the occupation of their hunting-grounds by the whites, and killed several of the settlers, one by one, as they would expose themselves, or be caught too far from the stations. A battle with the Indians took place in 1781 on Broad street, remembered as the "battle of the bluff". It was a hard fight, although the whites lost but few men. A number of the settlers, first and last, left here for "the Natchez", "the Illinois", etc., thinking they would find more attractive and profitable locations, and be free from the depredations of the Indians; and consequently the number of actual settlers in Nashville was considerably reduced in the beginning of 1783. In June of this year a treaty was entered into at General Robertson's house between commissioners from Virginia, Robertson, and the settlers, on one side, and a body of Indians on the other, the result being a better understanding between the races. Comparative peace prevailed for a short time. The Revolutionary struggle was over, there was general good feeling, and life and property were more secure. Commissioners from North Carolina came out, escorted by 100 soldiers, to look into the pre-emption rights of the new inhabitants, and to lay off a tract of 25,000 acres of land which the legislature proposed to give to General Greene for his extraordinary services in the war with Great Britain. North Carolina established an inferior court of pleas and quarter-sessions and invested it with considerable powers, not unlike those which the government of notables, arbiters, and triers had previously exercised. A court-house, prison, and stocks were erected, the town was laid off by commissioners, and Nashville assumed her place as a municipality. Two hundred acres was the quantity of land first laid off into town lots of 1 acre each, surveyed by Thomas Molloy in 1784. A ferry was established to cross the Cumberland, and provision was made for the institution of Davidson County academy, afterward the University of Nashville. This section of country was called Mero district, as a compliment to the Spanish governor of Louisiana at that time.

In 1790 North Carolina ceded all the territory west of the top of Stone mountain to the United States, and President Washington appointed William Blount territorial governor. Governor Blount appointed Andrew Jackson district attorney and John Donelson justice of the peace for Davidson county. These appointments were for the district of Mero, in the territory south of the Ohio river. The country prospered greatly, although the town grew slowly. A considerable trade was carried on by the Indians, who exchanged furs, skins, etc., for powder, lead, bright and gaudy colored handkerchiefs, and coarse blankets. Wheeled vehicles came into general use before the beginning of the present century.

Keel-boats and barges were used as early as 1810, and they took away large amounts of peltry to Pittsburgh, Natchez, and New Orleans, and brought back dry-goods, sugar, coffee, molasses, etc. The trips to either of the points named were long, tedious, and hazardous. The bargemen were stout and rough, and generally did as they pleased in every place where they landed. Their lawlessness was notorious. In the course of time, however, steamboats took the place of barges, and Nashville men very soon became either entire or part owners of steamers that navigated the Cumberland, the Ohio, and the Mississippi. In 1838, and for some years after, the finest and most costly steamboats that plowed the Mississippi river were owned by Nashville capitalists.

The panic of 1819 was very disastrous to the business men of Nashville. Many of them were utterly ruined, and this brought suffering to many others. The city finally recovered from this trouble, and was never in a more active, flourishing, and hopeful condition than in 1831-'32, about which time the city water-works were built, two banks, with large capital, were established, a house-insurance office was opened, and several steamboats were placed in the river trade. But the disastrous panic of 1837 checked all these things, and ruined many of



NASHVILLE,
TENN.

the best and most progressive business men. A considerable number of people removed to the then republic of Texas and began life anew. Real estate declined rapidly in value, and those who held on to what they had and bought more realized considerable profits in the course of a few years. The panic of 1857 did not very seriously affect the city. The panic of 1873, the effects of which continued for five years, greatly depressed business and labor; but most of the business men and all the banks successfully weathered the storm.

In 1806 the town was divided into six wards, containing nearly 533 acres. The municipality of South Nashville was organized, but subsequently was annexed to the old city, thus creating two more wards; then a large slice of territory in the northern part of the city came into the corporation, and the 9th ward was added; then the western suburb was annexed as the 10th ward, extending the area to 1,824 acres; then the corporation of Edgefield, on the eastern side of the Cumberland river, came into the city proper, making three more wards; then another slice of territory north of the city voted itself in, but the majority was so small that a lawsuit, known as the "fourteenth-ward case", was begun in court, and the matter is not yet decided—and the 14th ward is not yet incorporated as a part of the city. Then another slice of territory, on the western and southwestern portion of the city, was annexed as the 15th ward. The total area of the city now amounts to 3,483 acres, or nearly 5½ square miles.

During the civil war Nashville was at different times the storehouse for both armies, and was occupied by the Union as well as the Confederate forces.

NASHVILLE IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Nashville:

LOCATION.

Nashville, the capital of Tennessee and seat of justice of Davidson county, lies in latitude 36° 9' north, longitude 86° 47' west from Greenwich, on the south bank of the Cumberland river, 200 miles above its mouth. The city is built on the river bluffs, that here rise 80 feet above low-water mark. The Cumberland river, which has its source among the Cumberland mountains near the southwestern boundary of Kentucky, flows at first nearly westward, and then making a wide circuit in middle Tennessee, it passes by Nashville, returns to Kentucky, flows northward, and finally enters the Ohio near Smithland. It is navigable from its mouth to Nashville during nine months in the year, and, for part of the time, to Carthage, about 200 miles above.

RAILROAD COMMUNICATIONS.

Nashville is touched by the following railroad lines:

The Louisville and Nashville railroad, to Louisville, Saint Louis, Hickman (Kentucky), Memphis, and New Orleans.

The Nashville, Chattanooga, and Saint Louis railroad, between the points named, with connections to Atlanta, and, via Lynchburg, Virginia, to the North.

TRIBUTARY COUNTRY.

Nashville is the chief commercial center and wholesale market south of the Ohio. In addition to the railroads that center here, twelve macadamized turnpikes enter the city, and give it great facilities for handling the trade with the surrounding country. The country immediately tributary to the city is agricultural, the principal crops being tobacco and cotton.

TOPOGRAPHY.

A chain or circle of beautiful conical-shaped hills rises on the north and northwest and on the south and southwest. Two streams—Lick branch and Wilson Spring branch—run through the old city, about 1 mile apart. A stream runs through the eastern part of the city. All of these waters flow into the river. The city is about 500 feet above the level of the sea. The rim of highlands around the city is about 1,000 feet above sea-level. The rock underlying the city—for the place is called the "City of Rocks"—is limestone, which is mostly of a bluish color, and generally very fossiliferous. The mass of rock is made up of several distinct, nearly horizontal beds or strata, which differ in texture, in amount of impurity, and in fossiliferous character. All belong to one of the oldest ages of geology—the Lower Silurian—and to the upper division of this, called the Nashville epoch. The sulphur spring at old French Salt Lick, is one of the finest sulphur springs in the country, and is situated within the city limits. A good chalybeate spring is at the east end of the suspension bridge which connects East Nashville with the old city.

WATER-WORKS.

The city has excellent water-works, established in 1832, and enlarged from time to time to suit the wants of the growing town, until now 50 miles of water-pipe are laid, furnishing 5,000 families and business houses with water. The water-works have cost about \$1,500,000 in all.

GAS.

Gas-works have been for many years in successful operation, and the streets are lighted by 697 public lamps, at a cost of about \$14,000 per annum.

PUBLIC BUILDINGS.

Among the public buildings of Nashville may be mentioned the insane asylum, situated 7 miles outside the city limits; the institution for the blind, near the water-works; the state capitol, situated on the highest point within the city; the United States custom-house, and many school-houses, etc.

PARKS; PLACES OF AMUSEMENT; DRAINAGE; STREETS; HEALTH; MUNICIPAL CLEANSING, ETC.

No information on any of these subjects was furnished.

MARKETS.

There is one public market in the city, situated on College street, near the city hall. The area of the grounds is 280 by 110 feet, the north and south ends being covered, with ample space on all sides for farmers' and hucksters' wagons, carts, etc. The total cost of the market, including land, was about \$60,000. There are 32 butchers' stalls that rent for \$150 per annum each; 88 vegetable stalls that rent for \$75 per annum each; and 7 fish stalls that each rent for \$25 a year. The annual amount received for rentals, including public scales, 2 ice-houses, and 2 restaurants, is \$14,450. The hours during which the market is open are from 3 to 9 a. m. from April 1 to October 1, and from 4 to 11 a. m. during the remainder of the year; on Saturday the hours are from 4 a. m. to 9 p. m. all the year round. It is estimated that one-third of the retail supply of meats, poultry, fish, and vegetables is obtained by the public from this market, the remaining two-thirds being obtained from private shops and stores.

CEMETERIES.

There are 6 cemeteries used by the citizens of Nashville; 2 are general cemeteries for the Protestants, 2 are used by the Roman Catholics, 1 by the colored people, and 1 by the Jews.

City Cemetery, area 25 acres, situated in the southern part of the city, near the junction of the Louisville and Nashville, and the Nashville, Chattanooga and Saint Louis railroads, is not much used now. From 1822 to date there have been 21,589 interments made in this cemetery.

Mount Olivet Cemetery, 2 miles south of the city, contains 120 acres, and so far 6,079 interments have been made in it since 1859.

Mount Cavalry Cemetery, adjoining the above, has an area of 47 acres, and since 1869, 1,336 persons have been buried here.

The *Old Catholic Cemetery* has an area of 10 acres, but is not much used now.

Mount Ararat Cemetery, $1\frac{1}{2}$ mile outside the city, has an area of 35 acres, and the number of interments averages 350 a year. This cemetery is owned and managed by the colored people.

The *Jewish Cemetery* is about 1 mile north of the city, and has an area of about 2 acres; but few interments have been made here.

There are no church-yards or private burying-grounds in the city in which interments are made.

PUBLIC SCHOOLS.

Nashville has ever been noted as an educational center in the South, and never more so than at the present time. A grant of 240 acres adjoining the town was made by the state of North Carolina as early as 1785, through the efforts of General James Robertson, the founder of the city. From this grant Davidson academy was established, which grew into Davidson college, and subsequently into the University of Nashville. By the legislature of the state, one-half of one per cent. of the capital stock of the Planters' Bank of Tennessee, and of the Farmers' and Merchants' Bank of Memphis, was appropriated, in 1833, to the support of common schools, to be divided among all the counties, according to the free white population. Of the net profits of the Tennessee Fire and Marine Insurance Company, located at Nashville, 5 per cent. was appropriated to these schools. In 1837 the school-fund was ordered to be placed in the hands of the directors of the State Bank of Tennessee, as capital in the bank, upon which they were to issue certificates of stock to the superintendent of public instruction. In 1841 one-half of the fund arising from the sale of public lands to which the state was entitled by act of Congress of that year, was appropriated for the benefit of common schools. Besides the revenue from banking and insurance companies, the school-fund was increased \$11,700 by the proceeds of the sale of lands appropriated in 1849, and invested in state bonds. In 1853 a tax of 25 cents on polls and 2½ cents on each \$100 of property was assigned by the legislature for annual distribution to the different counties, through their county trustees, if two-thirds of the justices of the peace did not object, in which case the people were to adopt or reject the law by a general election. By the act of

1840, three school commissioners were elected in each county, and all children between the ages of 6 and 21 years were allowed to attend school. Thus common schools were in operation all over the state for many years before the war. The war destroyed these schools, and a new common-school system was established in 1867, and provision was made for the education of colored as well as white people. At this time the system is in very general operation throughout the state. The amount now annually received from the state and county to support the public schools of Nashville, which is the first civil district of Davidson county, is about \$25,000. But Nashville could not afford to wait for slow legislative enactments, and her people saw that the amount realized would not be half sufficient to sustain a good system of such schools as she needed, and therefore had a system established by municipal ordinance, and erected suitable buildings, employed a competent superintendent and capable and efficient teachers. The result is that now, in 1880, the city of Nashville owns, in her corporate capacity, 7 good large school-houses, and rents several small ones, in which to teach her school population of 6,098, at a cost of \$65,000 per annum. The schools are divided into primary, intermediate, grammar, and high-school departments. Vocal music, drawing, etc., are taught. Of the 6,098 pupils, 4,883 are white and 1,215 colored. The schools are taught 10 months in the year.

In addition to the public schools and the University of Nashville, already noted, may be mentioned the state normal school, the Nashville female academy, the Vanderbilt university, the Fisk university (the principal school for the colored people of the South), the Nashville normal and theological institute (also for colored people), the Central Tennessee college, and quite a number of private schools, etc., all situated in the city or in its immediate neighborhood.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Nashville for 1880, being taken from tables prepared for the Tenth Census by Franc M. Paul, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries.....	268	\$3,892,380	3,815	538	438	\$1,312,705	\$5,812,527	\$8,507,278
Blacksmithing.....	22	7,625	38	.....	2	13,995	19,126	51,033
Bookbinding and blank-book making.....	4	49,000	20	21	3	12,050	41,125	74,200
Boots and shoes, including custom work and repairing.....	27	17,225	71	1	4	28,638	37,035	95,159
Bread and other bakery products.....	9	90,700	77	6	7	32,040	165,674	250,967
Brick and tile.....	4	57,000	164	.....	51	38,920	27,000	80,938
Carpentering.....	17	50,450	213	.....	.....	92,142	162,190	302,205
Carriages and wagons.....	9	385,500	515	.....	.....	68,550	404,400	730,331
Clothing, men's.....	4	15,500	20	203	10	22,600	57,200	97,875
Coffins, burial cases, and undertakers' goods.....	4	6,850	10	.....	.....	4,750	14,250	38,550
Confectionery.....	3	24,000	14	73	10	11,500	113,000	140,225
Cooperage.....	6	6,300	58	.....	.....	19,105	24,140	63,650
Flouring- and grist-mill products.....	6	885,000	96	.....	.....	51,172	1,315,721	1,542,516
Foundry and machine-shop products.....	13	143,300	206	.....	7	69,755	238,788	487,407
Furniture.....	7	189,000	278	7	105	105,178	244,445	489,625
Leather, curried.....	3	38,000	18	.....	.....	7,300	169,302	187,010
Leather, tanned.....	4	59,000	31	.....	3	16,000	121,735	174,791
Lock- and gun-smithing.....	5	3,400	2	.....	1	1,025	8,000	7,925
Looking-glass and picture frames.....	4	11,500	25	.....	4	8,164	15,375	31,875
Lumber, sawed.....	7	330,000	453	.....	44	114,600	248,630	520,125
Marble and stone work.....	5	25,500	92	.....	.....	32,240	36,425	114,446
Painting and paperhanging.....	7	11,000	40	.....	.....	20,615	25,275	66,468
Patent medicines and compounds.....	7	61,500	31	.....	3	11,769	27,750	80,300
Plumbing and gasfitting.....	6	20,000	52	.....	1	20,725	64,358	101,950
Printing and publishing.....	17	495,400	222	32	40	163,314	144,437	486,981
Saddlery and harness.....	11	32,600	131	1	10	42,975	153,450	235,430
Tinware, copperware, and sheet-iron ware.....	12	113,150	148	.....	2	47,003	101,870	254,698
Tobacco, cigars and cigarettes.....	3	2,200	11	.....	2	4,110	3,300	14,310
Watch and clock repairing.....	8	7,300	13	.....	.....	12,125	10,095	31,080
All other industries (a).....	34	1,245,380	766	194	120	237,810	1,291,957	1,330,403

a Embracing bags, paper; baskets, rattan and willow ware; boxes, wooden packing; brooms and brushes; coffee and spices, roasted and ground; corsets; cotton goods; electroplating; furniture, chairs; instruments, professional and scientific; liquors, distilled; liquors, malt; masonry, brick and stone; mattresses and spring beds; mineral and soda waters; oil, cottonseed and cake; pumps; sash, doors, and blinds; show-cases; slaughtering and meat-packing; stencils and brands; trunks and valises; wooden ware; and woolen goods.

From the foregoing table it appears that the average capital of all establishments is \$14,523 81; that the average wages of all hands employed is \$274 01 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$25,592 67.

GEORGIA.

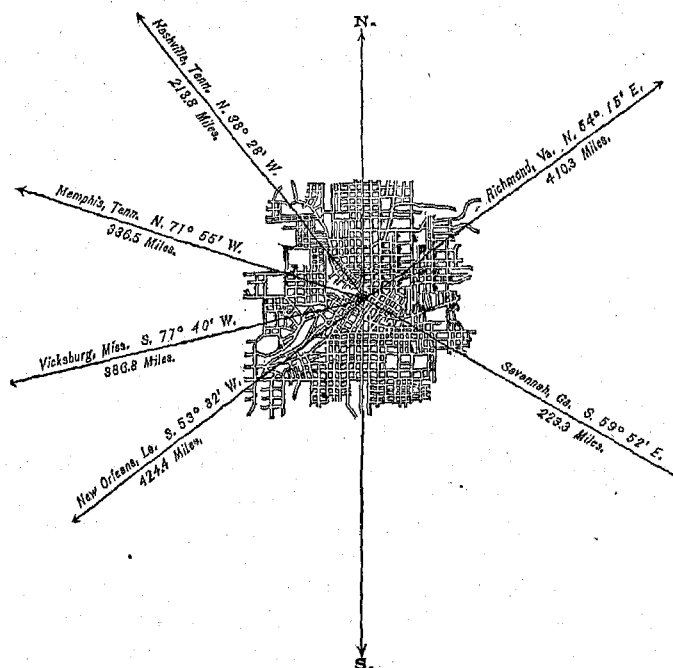
ATLANTA,

FULTON COUNTY, GEORGIA.

POPULATION

IN THE
AGGREGATE,
1850-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	2,752
1860.....	9,554
1870.....	21,789
1880.....	37,409



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male.....	17,677
Female.....	19,732
Native.....	35,993
Foreign-born.....	1,416
White.....	21,079
Colored.....	16,330

Latitude: 33° 45' North; Longitude: 84° 24' (west from Greenwich); Altitude: 1,050 feet.

FINANCIAL CONDITION:

Total Valuation: \$18,000,000; per capita: \$481 00. Net Indebtedness: \$2,180,000; per capita: \$58 27. Tax per \$100: \$2 20.

HISTORICAL SKETCH.

On the 21st of December, 1835, an act of the legislature of Georgia was approved by the governor, authorizing the "construction of a railroad from the Tennessee line, near the Tennessee river, to the southwestern bank of the Chattahoochee river, at a point most eligible for the running of branch roads thence to Athens, Madison, Milledgeville, Forsyth, and Columbus". In 1837 the eastern terminus was established, not at the Chattahoochee, but 7 miles east of it, near the site of the present passenger depot at Atlanta. At first, and until 1843, the place was called

"Terminus". The first house erected here was the work of Hardy Ivy, in 1836. To John Thrasher belongs the credit of erecting, in 1839, the second dwelling. In 1841, '42, and '43, a few more people moved here. In June of 1842 Willis Carlisle arrived and established a store near the present location of the First Presbyterian church. At the close of the year very little progress had been made, there being not more than half a dozen dwellings and three or four families; but the construction of the Western and Atlantic railroad had been pushed steadily forward, the Chattahoochee had been spanned and Marietta reached. The completion of the road to Terminus was soon accomplished.

In 1844, the settlement having made some growth, application was made to the legislature for a charter, which was granted on December 23, incorporating the village under the name of "Marthasville", in compliment to the daughter of ex-Governor Lumpkin, a gentleman distinguished in developing the railroad interests of the state. In 1845 appeared, under the editorship of Rev. Joseph Baker, *The Luminary*, Atlanta's first newspaper. Another event was the completion of the entire line of the Georgia railroad, the first train running through from Augusta to Marthasville on the 15th of September, 1845. A third important step taken during this year was the construction, by general subscription, of a small building for church and school purposes; it was used during the week as a school-house, and on Sunday as a union church. Still the population was scanty, numbering probably not more than 100 souls.

The year 1846 ushered in the third great railroad event in the life of Marthasville—the arrival of a train from Macon, on the Macon and Western railroad. The depot and junction of this road was fixed near the terminus of the "State" road and present passenger depot. This fact undoubtedly determined the exact location of the coming city. In this year three more newspapers made their appearance. They were all short-lived. While possessing many of the requirements of a large city, Marthasville contained but few people, and the number increased slowly. Nevertheless, while the village did not contain 300 inhabitants, some of the ambitious citizens began to feel too large for a village incorporation, and in the same year (1846) an effort was made to obtain a city charter; but the opposition of some of the more conservative people defeated the measure. In the following year, however, the attempt was more successful and the charter was obtained, giving the place the name of "Atlanta". The legislature passed the act December 29, 1847. A more rapid growth now began. The Baptists began the erection of a church edifice, and J. O. and P. C. McDaniel built the first block of brick stores, the only other brick buildings being the Atlanta hotel, erected by the Georgia railroad the previous year, and the railroad depots.

Atlanta's first city election occurred on Saturday, January 29, 1848, and the city council met for the first time on the 2d of February following. A fresh impetus was diffused through the body politic, and manifested itself in all directions. An excellent class of people moved in and new enterprises sprang up. In three years 5 churches were organized and buildings were erected. The estimated population of Atlanta at the beginning of its municipal career was not far from 500. There was a large class at this time, composed chiefly of workmen employed on the various railways, and adventurers, usual with new and thriving places, which was lawless and disposed to disorder. There were occasional conflicts between this class and the better citizens reinforced by the law; but the lawless element was gradually suppressed by the influx of better classes.

The year 1854 found Atlanta a busy and growing little city of about 6,000 inhabitants, showing a late rapid increase. There were 60 stores, and the sales of goods ran up to \$1,500,000. The onward march of Atlanta was not impaired by the commercial crisis of 1857, and the United States Census of 1860 showed it to be the fourth city of the state. Up to the beginning of the civil war the history of Atlanta is but a record of new enterprises and of the introduction of city improvements. Gas was introduced and the streets were lighted December 25, 1855, and in 1856 the Bank of Fulton was established, with a capital of \$125,000. The opening of the war was the first serious check which Atlanta had sustained. But during the war, though building mostly ceased and many of the best citizens left for the field, the aggregate population and business increased. Atlanta, of necessity, became one of the military centers and supply depots of the Confederacy. The manufacture of arms, ammunition, and war material in general was conducted here on the most extensive scale. In 1862 the city passed under martial law, and at once became the headquarters of quartermasters and commissaries; it was also made a chief hospital point.

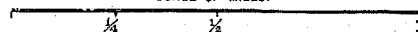
On July 9, 1864, the confederate army and the Union army had both reached the Atlanta side of the Chattahoochee, and on September 1 the city was evacuated, and was occupied the following day by the Union army. Two days later, September 4, General Sherman issued an order requiring the departure of all citizens within 8 days, which was complied with. Sherman held the city until November 16, when he began his famous march to the sea. What could not be consumed by fire was blown up, torn down, or otherwise destroyed. No other city during the war was so nearly annihilated. The center of the city was a mass of ruins, there being but a solitary structure standing on the main (Whitehall) street between its extreme commercial limits. At least three-fourths of the buildings in the city were destroyed.

The people of Atlanta began to return in November and December, 1864, and the work of rehabilitation began at once. Before the end of 1865 the old citizens had very generally returned, and many others ruined by the war, and forced again to choose a home site, came also. The work of rebuilding and restoring went on very rapidly, and in 1866 a census of the city showed that its population had passed the highest figure reached before the confederate evacuation, being 20,228 souls. In that year the legislature enlarged the limits of the city to a circle



ATLANTA,
GA.

SCALE OF MILES.



MOSS ENG. CO., N. Y.

3 miles in diameter. The new growth of the city was marvelous. The United States Census of 1870 found Atlanta exceeded in population by but one city of Georgia—Savannah—the figures being 21,789 and 28,235, respectively. In 1870 the need for a free-school system had become so pressing that the city charter was amended to empower the establishment and maintenance of the system. In the latter part of the previous year a board of education had been elected, and to this board was now by ordinance given full power to construct or lease school-buildings. The erection of 3 school-houses was begun at once, and finished by January, 1872. In February they were opened, and at the end of the first year showed 2 high and 7 grammar schools, with an attendance of 2,075 white scholars taught by 30 teachers.

The financial crisis of 1873 was severely felt in Atlanta, but its recovery was almost as marvelous as its previous rehabilitation. No bank in Atlanta fell, though one was obliged to suspend for a short time. Soon progress was again noticeable, and Atlanta seemed on the full tide of prosperity before many other places began to feel recovery. Certain abuses having crept into the municipal government, and the existence of a large and increasing public debt being noted with alarm, a "committee of forty-nine" was chosen which thoroughly revised the city charter. The legislature passed the revision, and it was approved by the governor on February 28, 1874. From this date to 1880 Atlanta's story is but a succession of forward steps. Its manufactures, trade, and resources are very large; in size it is now without a rival in the state, while the vote of Georgia in 1877, making it the capital, is destined to add still further to the importance of this rapidly growing city.

ATLANTA IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Atlanta:

LOCATION.

Atlanta lacks the advantage of a situation upon navigable water, its nearest considerable stream being the Chattahoochee, about 7 miles distant. It lies in latitude $33^{\circ} 45'$ north, longitude $84^{\circ} 24'$ west from Greenwich, nearly equidistant from New York and from New Orleans, near the northern central part of the state, and is the capital of Fulton county. Its average altitude above sea-level is 1,050 feet.

RAILROAD COMMUNICATIONS.

The city has long had much importance as a railroad center. It is the terminus of the following lines: The Western and Atlantic ("State") railroad, running to Chattanooga, Tennessee; the Georgia railroad, running to Augusta, Georgia; the Central railroad, running to Savannah, Georgia; the Atlanta and West Point railroad, to the latter place; and the Atlanta and Richmond Air Line, to Charlotte, North Carolina. Other roads are projected.

TRIBUTARY COUNTRY.

The country surrounding Atlanta is not rich, but under good cultivation yields very well. Most of the land has a clay subsoil and retains fertilizers readily, producing good crops of both northern and southern staples, including fruits of all kinds, vegetables, and cotton. The region has many fine water-powers, only a part of which are utilized, and contains a number of mines of coal, iron, copper, and other metals, including gold. The city is the leading market for upper Georgia, and is a great distributing point for the products of the West.

TOPOGRAPHY.

Atlanta is situated on the ridge which divides the waters of the Chattahoochee from those of the Savannah, Oconee, Ocmulgee, and Flint rivers. The geological formation is metamorphic. The rocks are granite, gneiss, and micaceous, and hydro-mica schists, which are decomposed generally to a depth of from 5 to 100 feet, affording a soil retentive of moisture. The surface of the site is varied by hills and valleys, affording fine building sites and perfect drainage—on the north into the Chattahoochee, and on the south into the South and Ocmulgee rivers. There are no adjacent ponds or marshes, though in the vicinity are some good chalybeate and magnesian springs. The surrounding country is still mostly covered with the original forest growth of oak, hickory, gum, etc.

CLIMATE.

Highest recorded summer temperature, 102° ; highest summer temperature in average years, 96° . Lowest recorded winter temperature, 4° ; lowest winter temperature in average years, 10° . There is no body of water near enough to have any appreciable climatic influence. Atlanta's prevailing breeze is from the mountains, and is pure and pleasant.

STREETS.

The total length of streets in the city is 100 miles, of which only 3 miles are paved with broken stone. Sidewalks are paved with brick, stone, flagging, and asphalt, with stone curbing, and have a width of 10 feet. Gutters are

paved with rough stone. Trees are planted along the sidewalks 8 feet from the street line. The work of street construction and repairs is done both by contract and by day work, at an annual cost of \$15,000. No steam stone-crusher or roller is used.

HORSE-RAILROADS.

There are 10½ miles of horse-railroads in the city, using 21 cars and 80 horses, and giving employment to 45 men. The number of passengers carried annually is 800,000, and the rate of fare is 5 cents. There are no omnibus lines.

WATER-WORKS.

The water-works are owned by the city, and their total cost is \$320,785. The Holly system of pumping is used, the pressure at the works being 115 pounds and in the city 45 pounds to the square inch. The average amount of water pumped per diem is 1,430,000 gallons—least amount, 1,298,000; greatest, 1,753,000 gallons. The average cost of raising 1,000,000 gallons one foot high is 12½ cents. The yearly cost of maintenance, aside from the cost of pumping, is \$600, and the yearly income from water-rates is \$21,000. A few water-meters, in the case of large consumers, are used, tending, it is believed, to reduce the consumption of water. The charge per 1,000 gallons is, to ordinary consumers, 17 cents, and to large manufacturing establishments 10 cents. There are 17 miles of water-pipes and 119 hydrants. The income from the works, after deducting operating expenses, is spent in extending water-mains and in other improvements.

GAS.

The gas-works are owned by a private company. The average daily production is from 50,000 to 60,000 cubic feet. The charge per 1,000 feet is \$3. The city pays \$30 annually for each street-lamp, 300 in number.

PUBLIC BUILDINGS.

The city owns and occupies for municipal purposes, wholly or in part, the city hall, station-house, engine-rooms, etc., also the "exposition building". The total cost of the municipal buildings owned by the city is \$150,000. The city hall alone cost about \$25,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The total area of the parks already opened is 32 acres. *Oglethorpe Park*, located on the Western Atlantic railroad, 2 miles from the center of the city, contains 27 acres, and is used mainly for agricultural expositions. It has been considerably improved by terracing, turfing, etc., and has a fine lake. *City Hall Park* is in the center of the city, contains 5 acres, and has been regularly laid out in walks, trees planted, and the ground grassed; it also has seats. *Ponce de Leon Springs*, 2 miles from the city, is approached by a street railway, and is, though open to the public, owned by a private person; it contains about 15 acres. The water-works grounds, owned by the city, are not yet laid out. They are about 4 miles from the city's center, and contain 318 acres. The parks are under the control of the mayor and general council. *Oglethorpe park* has been leased to the North Georgia stock and fair association for a term of years.

PLACES OF AMUSEMENT.

Atlanta has one theater, the Opera House, seating 1,600 persons; it pays a license of \$250 annually, or \$10 for each exhibition. There is also a hall—*Concordia hall*—with a seating capacity of 500, belonging to a German society, and used for concerts, lectures, balls, etc. There are no concert- and beer-gardens.

DRAINAGE.

Sewers are laid according to the requirements of each case as it comes up. They discharge into the natural water-courses. No information is furnished in regard to the size, material, extent, or cost of sewers, beyond the fact that inlet-basins cost \$20 and manholes \$30 each; brick-work laid in sewers \$16 50, and in manholes \$14 50 per thousand. Stone sewers are said to cost \$3 25 per perch. The whole cost of the sewers is paid by the city by general tax. Trenching and back-filling is done by day work. The 15,369 feet of sewers laid in 1878 cost \$9,793, but nothing is said of their size or material.

CEMETERIES.

There is one large public cemetery, called *Oakland Cemetery*, belonging to Atlanta. It contains about 100 acres of land, and is situated 1½ mile southeast of the center of the city. The total number of interments made in the cemetery is 22,313. Of this number, 5,000 were regularly interred or removed up to January 1, 1870, and since that time 9,147. There have also been 8,166 confederate soldiers interred or removed here since the war. Before an interment can take place a certificate by the attending physician is required, setting forth the cause of death, etc., which is recorded by the sexton. When such certificate can not from any cause be obtained, an order for burial may be given by the mayor or a member of the relief committee of the ward. A body may not be kept before burial longer than 6 days. Graves are dug 6 feet deep. Lots in the cemetery are sold at from \$25 to \$100 each. The charge for digging a grave for a person under 10 years of age is \$2; over 10 years, \$4. Lot-owners are unrestricted in the beautifying and improving of their lots. The gates of the cemetery are open from 8 a. m. to 6 p. m. A watchman employed by the city is constantly on duty. A section is set apart in which the city buries its pauper dead.

MARKETS.

Atlanta has no public market, supplies being sold by private stores and stands scattered over the city. The mayor reports that this method is not satisfactory, and the erection of a market-house is in contemplation.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary organization of the city is the board of health, composed of 5 members, one from each ward, 3 of whom are physicians, elected annually by the general council. Each member, including the chairman, receives \$100 annually. The board incurs no direct expense, its province being chiefly to advise and recommend measures to the general council. Its work consists largely in reporting and removing nuisances. When the council adopts any health measure, it appropriates the money needed to carry it out. As yet the city has escaped epidemics; should one occur the council would doubtless appropriate the additional funds needed for the board's work. It does not appear that the powers of the board are increased during an epidemic. The board has 2 executive officers, who are policemen detailed for the duty. The board meets every two weeks, or oftener if necessary, is presided over by a chairman, and considers in the usual way matters pertaining to its department.

Inspections are made regularly in all parts of the city, and particular attention is paid to reported nuisances, in which case, if the report is found to be true, the causing person or owner on whose lot the nuisance is found is required to abate it. In case of defective house-drainage, if the fault lies in the sewer, the city remedies it; if in a private lot, the owner must rectify it. All privy-vaults and cesspools have been abolished by cleaning out their contents and filling them with fresh earth. To prevent the contamination of drinking-water, the gathering-ground of the reservoir is inspected regularly for the detection and removal of nuisances. Street-cleaning is inspected by the inspectors of the board. Atlanta has no streams, except a few from small springs, and some houses deliver their sewage into these runs. Excrement is carted away from the center of the city, but, as yet, in an imperfect manner.

INFECTIOUS DISEASES.

Small-pox patients are sent to the pest-house, situated just outside the city limits. Cases of scarlet fever are rare, and patients are not isolated. Schools have never suffered from epidemics, other than those of measles and hooping-cough. School-children only are required to be vaccinated, but this is not done at the public expense.

Births and diseases are not registered, but the deaths reported by the sextons are recorded by the board.

REPORTS.

The board makes semi-annual reports to the general council, and the same are published.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its regular force. The work is done wholly by hand, no sweeping-machines being used. In the thickly built-up portions of the city this cleaning is done daily, in other parts only as often as necessary. The work is reported as reasonably well done. The cost of the work is not kept separate from that of the street department. The sweepings are deposited outside the city, such as are suitable being made into fertilizers. The system is under the supervision of inspectors, and is said to work well.

Removal of garbage and ashes.—Within certain defined central limits, the city with its own force removes garbage; outside of this district it is done by the householders. The city requires such garbage as it removes to be placed in suitable receptacles at certain hours, for removal by the daily carts. Ashes and garbage may be kept in the same vessel, and both are removed outside of the city and made into fertilizers. The cost of the service is not separated in the accounts of the street department, to which the work belongs. The whole system is under rigid inspection, and is thus kept up to a good degree of efficiency and freedom from menace to health, though the opinion is expressed that there should be a more uniform system of final disposition. At present it is given to private individuals.

Dead animals.—The carcasses of all animals dying within the city must be removed outside the limits and buried by the owners; if the owners can not be found the city does the work. Neither the cost of the service nor the number of carcasses removed is stated. The system is not entirely satisfactory, as the owners of dead animals are inclined to throw upon the city the trouble and cost of removal.

Liquid household wastes.—A large part of the liquid household wastes of the city are delivered into the public sewers; where sewer connection is not had, a recent ordinance requires a water-tight receptacle under privies, into which the wastes are poured. No wastes are run into street-gutters, and all privy-vaults and cesspools have been abolished as dangerous to health.

Human excreta.—About one-third of the houses in the city have water-closets, all of which deliver into the public sewers, and the rest depend on privy receptacles. The city removes the contents of the privies in the thickly built part twice a week; elsewhere the owners are required to empty them. In the operation of cleaning out, dry earth or other disinfectants must be used. The night-soil is carried out of the city and given to private parties, who manufacture it into fertilizers. It is not allowed to be used for manuring land within the gathering-ground of the public water-supply.

Manufacturing wastes are said to be removed outside the city.

POLICE.

The police force of Atlanta is appointed and governed by a board of 5 police commissioners. The chief of police is at the head of the force, and has direct control of the same; his salary is \$1,500 per annum. The remainder of the force consists of 4 captains at \$900 each per annum; 1 clerk and station house keeper at \$900 per annum; and 1 assistant clerk and station-house keeper, 2 sanitary officers, and 26 patrolmen, at \$54 a month each. The uniform is of blue cloth; for officers double-breasted and for privates single-breasted frock coats. Patrolmen are equipped with 22-inch clubs, and furnish their own pistols. They serve 12 hours per day and patrol $7\frac{1}{2}$ square miles of territory.

During 1880 the arrests numbered 4,345. Of these, 3,619 had violated city ordinances, and 726 had transgressed state laws. Their disposition was: city cases fined, 1,969; dismissed, 1,650; state cases prosecuted, 505; released, 221. The force is required to assist firemen at fires and protect property; the members are also required to report all nuisances coming to their knowledge. The yearly cost of the police force (1880) is \$27,668 35.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Atlanta for 1880, being taken from tables prepared for the Tenth Census by Moses T. Simmons, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries.....	196	\$2,468,450	2,753	533	894	\$880,282	\$3,150,267	\$4,801,727
Blacksmithing.....	10	5,300	20	.....	2	7,050	10,300	24,050
Boots and shoes, including custom work and repairing.....	11	1,800	23	.....	.....	8,438	10,467	20,080
Bread and other bakery products.....	6	36,900	42	13	9	19,200	115,500	161,100
Brick and tile.....	14	31,240	230	.....	83	42,230	33,915	102,200
Carpentering.....	10	85,500	318	.....	5	92,800	220,000	382,200
Carriages and wagons.....	8	22,000	86	.....	4	32,800	30,700	81,500
Clothing, men's.....	3	13,400	12	28	.....	8,405	17,000	32,500
Confectionery.....	4	78,300	50	23	1	18,140	215,000	260,000
Dyeing and cleaning.....	3	7,000	7	4	.....	3,014	2,024	10,000
Flouring- and grist-mill products.....	4	125,000	34	.....	.....	15,000	474,000	527,800
Foundry and machine-shop products.....	7	314,866	172	.....	7	72,393	114,784	252,008
Furniture (see also Mattresses and spring beds).....	3	22,350	85	3	3	17,568	28,759	82,014
Lumber, planed.....	5	81,000	235	.....	10	56,780	170,000	285,000
Marble and stone work.....	4	14,400	25	.....	.....	8,050	7,800	33,100
Mattresses and spring beds (see also Furniture).....	3	1,400	5	5	1	1,800	2,000	6,200
Painting and paperhanging.....	6	2,050	23	.....	.....	6,020	6,400	18,050
Patent medicines and compounds.....	9	102,500	59	15	7	30,492	52,700	128,500
Printing and publishing.....	10	183,500	103	10	15	71,112	90,549	220,883
Saddlery and harness.....	3	12,200	15	.....	.....	8,000	17,100	32,000
Slaughtering and meat-packing, not including retail butchering.....	9	25,700	35	.....	6	9,473	260,077	309,003
Tinware, copperware, and sheet-iron ware.....	7	44,300	86	.....	6	25,250	80,400	127,500
Watch and clock repairing.....	4	5,200	7	.....	2	4,524	4,000	14,800
All other industries (a).....	47	1,251,350	1,012	432	233	327,558	1,170,532	1,730,849

a Embracing agricultural implements; bags, paper; baking and yeast powders; bookbinding and blank-book making; boxes, fancy and paper; boxes, wooden packing; brass castings; coal-tar; coffee and spices, roasted and ground; coffins, burial cases, and undertakers' goods; cooperage; copper-smithing; cotton goods; dyeing and finishing textiles; ice, artificial; instruments, professional and scientific; iron and steel; liquors, distilled; liquors, malt; lithographing; looking-glass and picture frames; masonry, brick and stone; millstones; mineral and soda waters; models and patterns; musical instruments, organs and materials; paints; paving materials; perfumery and cosmetics; plumbing and gasfitting; stencils and brands; straw goods; tobacco, cigars and cigarettes; trunks and valises; and upholstery.

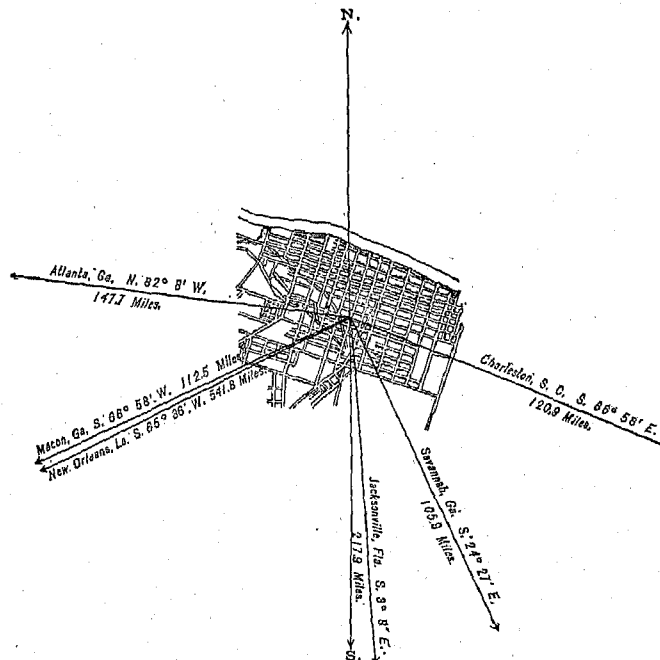
From the foregoing table it appears that the average capital of all establishments is \$12,594 16; that the average wages of all hands employed is \$241 65 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$21,411 51.

AUGUSTA, RICHMOND COUNTY, GEORGIA.

POPULATION

IN THE
'AGGREGATE,
1800-1880.

	Inhab.
1790.....	.....
1800.....	2,215
1810.....	2,476
1820.....	.....
1830.....	.....
1840.....	6,403
1850.....	10,217
1860.....	12,493
1870.....	15,389
1880.....	21,891



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	9,827
Female	12,064
Native	20,693
Foreign-born	1,198
White.....	11,771
Colored	10,120

Latitude: 33° 29' North; Longitude: 81° 51' (west from Greenwich); Average altitude: 147 feet.

FINANCIAL CONDITION:

Total Valuation: \$13,730,681; per capita: \$627 00. Net Indebtedness: \$1,959,519; per capita: \$89 51. Tax per \$100: \$1 93.

HISTORICAL SKETCH.

Augusta was settled by English colonists under Oglethorpe, and was laid out in 1735 under royal charter, being named in honor of one of the English princesses. It was again chartered in January, 1798, and incorporated as a city in December, 1817. It was for many years the most important inland town of the colony. It had acquired a considerable trade at the commencement of the Revolutionary war, but in the beginning of 1779 was captured by the British and loyalists, who held possession of it till the spring of 1781, the British force being then commanded by a loyalist by the name of Brown. On May 23, 1781, an American force under command of General Henry Lee—"Light-Horse Harry"—laid siege to it, and, on the 5th of June, Brown surrendered. The Americans lost 51 killed and wounded; the British lost 52 killed, and 334, including the wounded, taken prisoners. During the war of 1812 or the Indian wars Augusta was not molested. During the war of the rebellion the city was not visited by the Union army, though General Sherman made a feint against that place in his march through the state. The water-power

of Augusta has contributed much to her present prosperity. As early as 1844 a project was started for the building of the Augusta canal, and a board of commissioners was appointed by the city council for "the purpose of constructing a canal from a point in the Savannah river, about 7 miles above, to the city of Augusta, for manufacturing purposes, and for the better securing of an abundant supply of water to the city". The work was begun in 1845, and was completed early in 1847. The canal had a width of 40 feet at surface and 20 feet at bottom, and was 5 feet deep, giving a total mechanical effect of about 600 horse-power. It soon became evident that the canal was too small, and, after several temporary expedients had been tried, the city council decided on its enlargement. The new work, which stands to-day, was begun in March, 1872, and completed in July, 1875, making the dimensions and capacity of the canal as follows: Length of main canal or first level, 7 miles, and, including second and third levels, 9 miles; minimum water-way, 150 feet at surface, 106 feet at bottom, and 11 feet deep, making an area of cross-section of 1,408 square feet. The bulkhead, locker, dam, and other structures are of stone masonry laid in hydraulic cement, and are of the most substantial character. The area of the openings for the supply of the canal amounts to 1,463 square feet, and the entire waters of the Savannah river are made available for maintaining the supply. There are about 275 acres of reservoirs, exclusive of the canal proper and the pond above the bulkhead of the dam. There is a bottom grade or descent in the main canal of 0.01 foot in 100 feet, giving a theoretical mean velocity of 2.74 feet per second, or a mechanical effect under the minimum fall between the first and third levels, or between the first level and the Savannah river, of upward of 14,000 horse-power, not including the available supply from the reservoir. Of this immense power only 1,900 horse-power is contracted for. The present price per horse-power, conveyed on perpetual lease, is \$5 50. The canal is owned and operated by the city, which sells the land along the canal to those leasing the water-power. From first to last there has been nearly \$2,000,000 expended on the works, the last enlargement costing \$822,866 69, and its completion seems to assure the manufacturing future of Augusta, several cotton-mills being now in operation.

On April 3, 1829, a fire occurred in the city that consumed between 400 and 500 houses and entailed a loss of \$1,000,000. The people, however, quickly recuperated, and better buildings were erected in the place of those destroyed. Since the "great fire", as it is called, Augusta has not been visited by any severe conflagrations. At one time the population seemed to decrease and business depreciated, but the work on the canal and the erection of factories arrested the downward progress. The first settlers were originally English, who were afterward supplanted by a strong northern element, which still exists. Quite a large Irish population came in during the construction of the canal. Augusta was for some years the capital of the state.

AUGUSTA IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Augusta :

LOCATION.

Augusta lies in latitude 33° 29' north, longitude 81° 51' west from Greenwich, on the right bank of the Savannah river, at the head of steamboat navigation, and distant 213 miles by river above the city of Savannah. Its average altitude above mean sea-level is 147 feet. Hamburg, South Carolina, is on the opposite bank of the river, and is reached by a bridge. The draught of water in the river varies from 4 to 10 feet.

RAILROAD COMMUNICATIONS.

The city is touched by the following-named railroads :

The Macon and Brunswick railroad, to Macon, and from there to the coast.

The Georgia railroad, to Atlanta.

The South Carolina railroad, to Charleston.

The Port Royal railroad, to Port Royal.

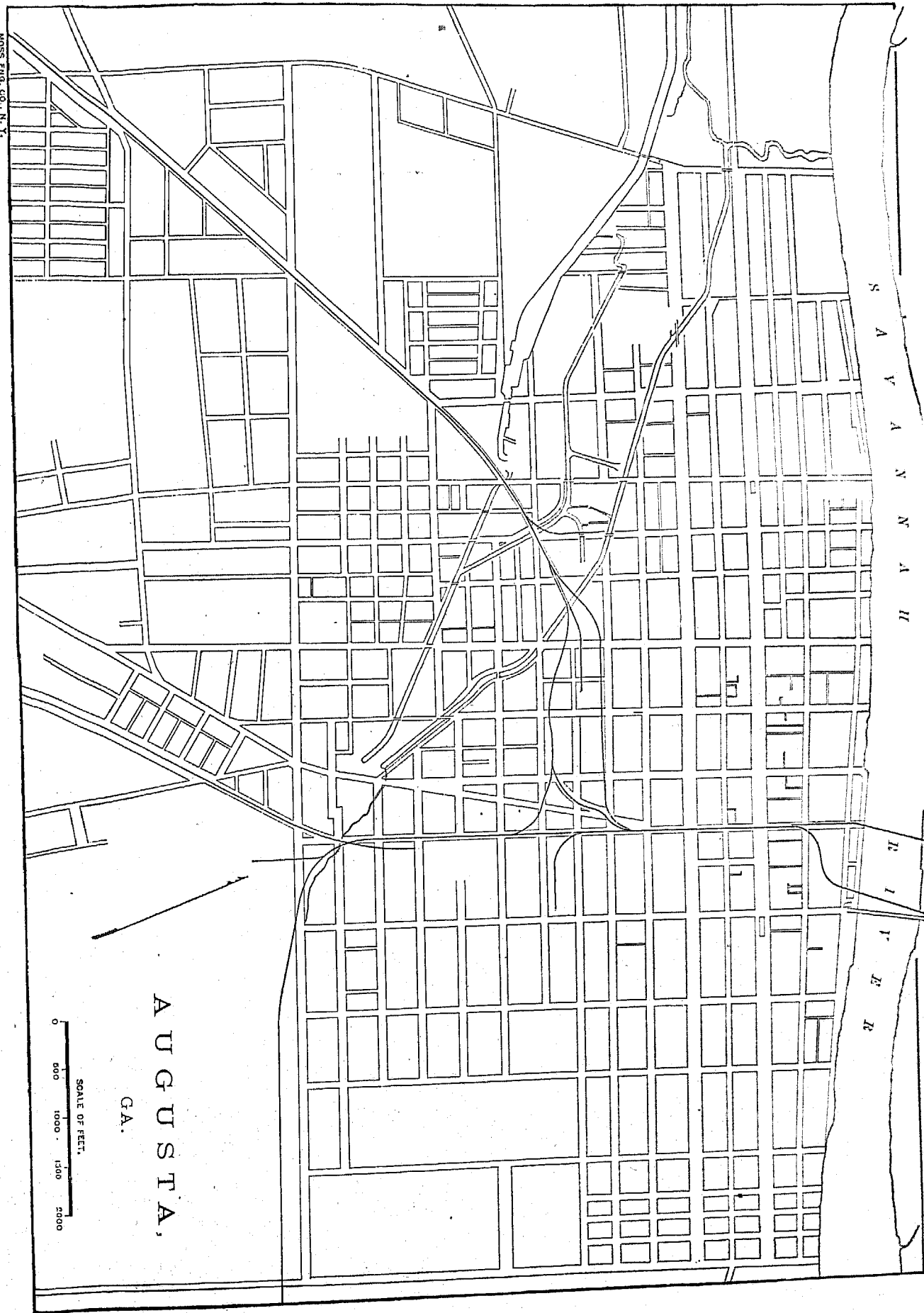
The Central Railroad of Georgia, to Savannah.

The Charlotte, Columbia, and Augusta railroad, to Charlotte, North Carolina.

These roads give Augusta communication with all parts of the country.

TRIBUTARY COUNTRY.

The country immediately tributary to Augusta is agricultural, with cotton as the chief staple. About 200,000 bales of this product are brought into the city annually, part of which is used in the manufactories in and around the place, while the remainder is shipped to Charleston and Savannah. The numerous railroads running from here give the city excellent facilities for a great wholesale business with most of the towns in the state and with the "hill country" of South Carolina, drawing, in return, the produce from those regions.



MOSS ENG. CO., N. Y.

TOPOGRAPHY.

The site of the city is on a bluff of the Savannah river, averaging about 20 feet in height from the surface of the river at low water. The variations of level are but small, and the natural drainage is not good, but a large sewer or canal, soon to be built (at a cost of \$30,000), will give sufficient drainage for the city. The character of the soil is a mixture of clay and sand-loam, while back from the river, on the hills, it is nothing but sand. The adjacent country is considerably wooded.

CLIMATE.

Highest recorded summer temperature, 104°; highest summer temperature in average years, 86.5°. Lowest recorded winter temperature, 17°; lowest winter temperature in average years, 29°. The marshes in the vicinity have but little influence on the climate. Westerly winds are considered healthful, and easterly winds the reverse.

STREETS.

There are 46 miles of streets in the city, none of which are paved. The sidewalks are of brick, 15 to 20 feet in width. Nearly all the streets in the city have trees growing at the sides, at the edge of the sidewalks, and there are about 5 miles of avenues in the centers of the different streets. The work of repairing streets is done by the day, at an annual cost of \$16,000.

STREET-RAILWAYS.

There are 4½ miles of horse-railroads in the city, using 7 cars and 34 horses, and giving employment to 37 men. The number of passengers carried during the year is 377,309, and the rate of fare is 5 cents. There are 5 omnibuses in the city, with 14 horses and 7 men, that carry annually 12,000 passengers for 25 cents each.

WATER-WORKS.

The water-works are owned by the city, but their total cost was not given. The water is pumped by water-power, either directly into the main or into a stand-pipe, with no expense, except for keeping the pumps in repair and the engineer's salary. The pressure in pumping is 45 pounds to the square inch. The amount of water pumped per diem varies from 2,000,000 to 3,000,000 gallons. The annual cost of maintenance is \$7,500, and the yearly income from water-rates is \$16,000; water-meters are not used.

GAS.

The gas-works are owned by a private corporation. The charge per 1,000 feet is \$3 50. The city pays \$20 annually for each street-lamp, 370 in number.

PUBLIC BUILDINGS.

The city owns and occupies for municipal uses, wholly or in part, city hall, jail, engine-houses, and treasury building. Their total cost is given at \$300,000. The city hall is owned entirely by the city, but it is also used for county purposes. Its original cost was \$100,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The fair-grounds, situated in the southeastern portion of the city, cover an area of 47 acres, and are owned by the city. Their total cost was \$60,000. The grounds are controlled by the city council.

PLACES OF AMUSEMENT.

The Augusta opera-house, seating capacity 1,000; Masonic hall, seating capacity, 800; and Market hall, seating capacity, 1,800, are used for theatrical performances, concerts, and lectures. Theaters pay an annual license of \$100 to the city. There are no concert- or beer-gardens.

DRAINAGE.

The few sewers now used in the city were originally built for drainage purposes and are not adapted for sewerage. They are flushed monthly, and obstructions, as a rule, are removed annually, or oftener if occasion requires. In the building of these old drains the property-owner furnished the brick or pipe and the city did the work. A complete system of sewerage has been adopted, and work will soon be begun. The city will issue 6 per cent. bonds to defray the cost.

CEMETERIES.

There are 2 cemeteries and 1 church-yard in Augusta:

City Cemetery, for whites, situated in the southeastern portion of the city, adjoining the fair-grounds, contains 41.61 acres.

Colored Cemetery, also adjoining the fair-grounds, is used by the colored people, and contains 17.16 acres.

Saint Paul Church-yard, between Reynold and Bay streets, is now no longer used for interments.

The total number of interments since 1813, including 2,000 in the Church-yard, so far as can be learned from past records, is 13,383. The two cemeteries are owned and controlled by the city, and are in charge of the city

sexton, appointed annually by the city council. An assistant keeper for the Colored cemetery is also appointed by the city council, who is subordinate to the city sexton. Interments are made under the direction of the sexton, and in all cases a certificate of death, signed by the attending physician, must be furnished. No grave may be dug less than 5 feet deep. Burial fees, price of lots, etc., are regulated by the city council and existing ordinances. Lots are sold for burial purposes, and the owners can improve and inclose the same, in accordance with the rules and regulations of the cemeteries.

MARKETS.

There are 2 public markets in the city. They are both situated in the center of Broad street, and the street outside of them is used as standing-ground by farmers' and hucksters' wagons. The Lower market, at 5th street, is a new building, erected four years ago at a cost of \$25,000, and is in perfect order. It contains 32 stalls—19 meat, 12 vegetable, and 1 fish—and the total yearly rental to July 1, 1880, was \$4,055 87. The Upper market, near 12th street, is an old building, or rather shed, on brick pillars, and its yearly rental was but \$100. The markets are opened from one hour before sunrise to sunset, and on Saturdays from the same hour in the morning till 10 p. m. The gross amount of annual sales from the stalls within the markets is \$100,000. It is estimated that double the quantity of meats, fish, and poultry are sold either from private stores or from huckster wagons than are sold from the markets. There is only one fish-stall in the Lower, and none in the Upper market, the most of this trade being done on the streets from wagons.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary authority of Augusta is the board of health, created by the state laws, an independent body appointed by the city council. It is composed of 4 citizens, one from each ward, 2 physicians from the city at large, and 1 chemist, holding office for four years each, with the mayor and committee of health as members *ex officio*. The members of the board serve without pay or emoluments. A secretary is appointed to serve for four years. The expenses of the board in ordinary times are \$5,000, for salaries, disinfectants, etc., and in case of an epidemic this sum may be increased to such amount as the city council may deem proper. The authority of the board in the absence of epidemics extends over all sanitary measures necessary to the public health and for the prevention of the generation and introduction of all contagious diseases. During an epidemic the board has power to establish hospitals, to declare what are infected portions of the city, to establish and enforce quarantine, and, in general, to do every thing necessary to check and control the disease. The chief executive officer is the president, who presides at all meetings, and between meetings enforces all the rules and regulations of the board; he receives no salary. One or two inspecting officers are appointed from each ward, when necessary, and they have full police powers. The board meets once a month, or oftener on call of the president, and transacts its business as a deliberative body. Inspections are made regularly in all parts of the city, and the inspectors are enjoined carefully to note the condition of all buildings, privies, yards, streets, lanes, sewers, etc., in their respective districts. When a nuisance is discovered the party responsible for the same is notified to remove it, and if this is not done the inspector has the nuisance removed by order of the mayor, the cost and fine being collected in the recorder's court. All defective house-drainage, privy-vaults, cesspools, sources of drinking-water, sewerage, etc., are noted and corrected by the inspectors. The board exercises no control over the removal of garbage, other than that it must not become a nuisance. Burials are made by the city sexton on physicians' certificate of death, but no body can be disinterred except by permission of the board. The board forbids the pollution of all streams or canals, and regulates the removal of excrement.

INFECTIOUS DISEASES.

Small-pox patients are at once isolated in the small-pox hospital. Scarlet-fever patients are either quarantined at home or sent to the hospital. In case of the breaking out of a contagious disease in either public or private schools, the board forbids the attendance of children from infected families. Vaccination is compulsory, and is done at the public expense when the people are unable to pay.

A record of the vital statistics of the city is kept by the secretary of the board. The sexton is required to make a return of all deaths, and physicians or others to report all cases of contagious diseases.

REPORTS.

The board reports annually to the city council, and the report is published in pamphlet form.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its regular force. The work is done wholly by hand, no sweeping-machines being used. The streets are cleaned daily, and the work is reported as efficiently done. The cost is included in the repair of streets. The sweepings are taken to South common and burned, after which they are hauled into the country for manure. The system is good, but the place of disposal is too near the city limits.

Removal of garbage and ashes.—All garbage is removed at the expense of the city with its own force. It is set out in suitable vessels, and removed daily from June 1 to November 1, and three times a week during the remainder

of the year. It is disposed of in the same way as street-sweepings. Ashes are either thrown into the streets or used for filling up sunken lots. The cost of the removal is included in the repair of streets. Owing to the frequency of the removal of garbage, no injury to health arises from the system.

Dead animals.—The carcasses of all animals dying within the city are removed by the street force and buried on South common. No record is kept of the number, and the cost is included in the street-work. The system is faulty, and it is recommended that the carcasses be either thrown into the river or buried outside the city limits.

Liquid household wastes.—About one-tenth of the wastes are run into the sewers, and the balance are thrown into privy-vaults, cesspools, or surface privies, but very little ever reaching the street-gutters. The cesspools are porous, are not provided with overflows, and frequently receive the wastes from water-closets. When cleansing is necessary, 100 or 200 gallons of copperas-water are thrown in, and then the contents are removed and buried in a pit dug in the adjacent soil for the purpose. Street-gutters are flushed twice a month. Many cases have been known where well-water has been contaminated by the overflowing and underground escape of the contents of vaults and cesspools, and these will be abolished.

Human excreta.—About one-sixth of the houses in the city are provided with water-closets, two-thirds of which deliver into the sewers and one-third into cesspools, and the remainder depend either on privy-vaults or on surface privies. Privy-vaults must be at least 2 feet from any party-line and 5 feet from any street or alley. None of them are water-tight. They are required to be disinfected every two weeks, and are cleaned out in the same manner as cesspools, between the hours of 11 p. m. and 4 a. m. The night-soil is buried in holes dug near the privies.

Manufacturing wastes.—The liquid wastes are thrown into the canal, while the solid wastes are treated in the same manner as garbage.

POLICE.

The police force of Augusta is appointed and governed by the board of police commissioners, appointed by the state legislature. The board consists of five members, with the mayor as a member *ex officio*. The chief of police is the executive officer, and has full charge, under the board, of the entire force. His salary is \$1,300 per annum. The remainder of the force consists of 1 first lieutenant at \$1,100 a year; 1 second lieutenant at \$950 a year; 1 orderly sergeant at \$820 a year; 4 patrol sergeants at \$720 a year each; and 38 patrolmen at \$600 a year each. The uniform is the same as that worn by the police of New York city, and each man provides his own. The men are equipped with clubs and belts and revolvers. The hours of service are six on and six off, and all the streets in the city are patrolled by the force.

During the past year 3,540 arrests were made by the police, the principal causes being for drunkenness, disorderly conduct, larceny, etc. Those for drunkenness and disorderly conduct were sent before the recorder, while the others were turned over to higher courts. During the year the amount of stolen property reported to the police was \$2,557 15, and of this sum \$2,35 415 was recovered and returned to the owners. In the same period there were 326 station-house lodgers. The police department is subject to the orders of the chief of the fire department during all fires, and co-operates with the board of health at all times. Extra men are appointed by the board of commissioners when deemed necessary for the public good. They have all the powers of the regular force while on duty. The yearly cost of the police force (1880) is about \$30,000.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Augusta for 1880, being taken from tables prepared for the Tenth Census by Ernest E. Doscher, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries.....	60	\$2, 069, 275	867	511	302	\$448, 825	\$2, 247, 665	\$3, 189, 029
Blacksmithing.....	5	2, 075	11	.....	.....	3, 221	5, 730	12, 530
Carpentering.....	5	14, 350	81	.....	.....	30, 585	68, 033	111, 016
Carriages and wagons.....	4	80, 450	62	.....	2	24, 456	52, 750	61, 740
Cotton goods.....	6	1, 860, 000	222	493	284	223, 633	1, 038, 466	1, 400, 982
Flouring and grist-mill products.....	3	144, 000	50	.....	6	18, 360	770, 000	800, 930
Foundry and machine-shop products.....	4	56, 000	107	4	14	37, 020	70, 600	146, 250
Tinware, copperware, and sheet-iron ware.....	4	4, 100	14	.....	1	4, 250	17, 200	27, 700
All other industries (a).....	20	408, 300	320	14	45	106, 700	215, 787	418, 840

a Embracing bread and other bakery products; brick and tile; coffins, burial cases, and undertakers' goods; confectionery; fertilizers; ice, artificial; looking-glass and picture frames; marble and stone work; mattresses and spring beds; mineral and soda waters; painting and paperhanging; patent medicines and compounds; plumbing and gasfitting; printing and publishing; saddlery and harness; sash, doors, and blinds; stencils and brands; tobacco, chewing, smoking, and snuff; tobacco, cigars and cigarettes; wheelwrighting; and woolen goods.

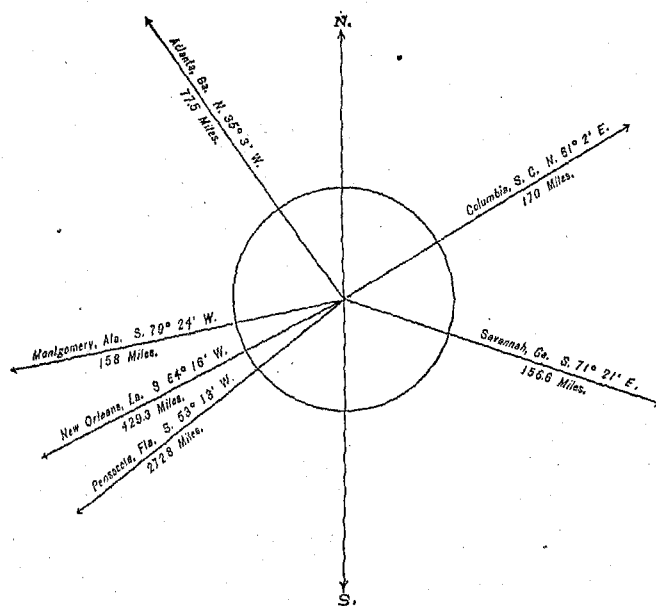
From the foregoing table it appears that the average capital of all establishments is \$34,487 92; that the average wages of all hands employed is \$267 16 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$47,010 78.

MACON, BIBB COUNTY, GEORGIA.

POPULATION

IN THE
AGGREGATE,
1840-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	3,927
1850.....	5,720
1860.....	8,247
1870.....	10,810
1880.....	12,749



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	5,709
Female.....	7,040
Native	12,263
Foreign-born	486
White	6,164
Colored	*6,585

* Including 1 Indian.

Latitude: 32° 50' North; Longitude: 83° 40' (west from Greenwich); Altitude: 330 to 480 feet.

FINANCIAL CONDITION:

Total Valuation: \$6,222,000; per capita: \$488 00. Net Indebtedness: \$743,000; per capita: \$55 28. Tax per \$100: \$2 05.

MACON IN 1880:

In 1822 there was but one cabin on the ground now occupied by the city of Macon. Since then its increase has been steady and at times rapid.

The following statistical accounts, collected by the Census Office, indicate the present condition of Macon:

LOCATION.

Macon, the capital of Bibb county, is situated on both sides of the Ocmulgee river, at the head of steamboat navigation, in latitude 32° 50' north, longitude 83° 40' west from Greenwich, and about 80 miles southwest from Atlanta. Its altitudes above sea-level are, average, 350 feet; lowest point, 330 feet; and highest, 480 feet. At one time 8 or 10 steamboats were engaged in the river trade from here, but of late years the Ocmulgee has become so filled with logs and mud that navigation has been abandoned.

RAILROAD COMMUNICATIONS.

Macon is touched by the following-named railroads:

The Central Railroad of Georgia, between Columbus and Savannah.

The Western division, to Atlanta.

The Georgia railroad, to Camack, and from there to Augusta.

The Southwestern railroad, to Eufaula, Alabama.

The Macon and Brunswick railroad, to the places named.

These roads, and their terminal connections, give to Macon communication with all parts of the country.

TRIBUTARY COUNTRY.

The country immediately tributary to Macon is level, and is generally devoted to agriculture, cotton being the principal production.

TOPOGRAPHY.

The site of the city is hilly, with sandy soil and underlying rock, in some portions of limestone, in others sandstone. The city is rather more elevated than the surrounding country, which, within a radius of 5 miles, is considerably wooded. Lakes and swamps lie below the city.

CLIMATE.

Highest recorded summer temperature, 104°; highest summer temperature in average years, 96°. Lowest recorded winter temperature, 4°; lowest winter temperature in average years, 20°. The influence of the adjacent waters is not considered injurious to health, but the marshes are said to give rise to malaria.

STREETS.

There are 135 miles of streets in the city, none of which are paved. Sidewalks are of brick and granite. But few gutters have been placed, and they are of stone. Trees are planted in the middle of streets, and grass is also allowed to grow there. All construction and repairs are done by the city's force and the chain-gang, the annual cost being about \$5,000. Day work is reported to be better done than contract work. At present there is no horse-railroad in operation, but one is being built. The only omnibus lines are those from the hotels.

WATER-WORKS.

The water-works are owned by a private company, and no statistics regarding them were furnished.

GAS.

The gas-works are owned by the city. The charge per 1,000 feet is \$3. The city pays \$25 a year for each street-lamp, 100 in number.

PUBLIC BUILDINGS.

The city owns or occupies for municipal uses, wholly or in part, the city hall and the police barracks. The total cost of the city buildings is given as \$80,000, and the cost of the city hall as \$20,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There is but one park in Macon, called "*Central City Park*", with a total area of 720 acres. It is mostly in large forest trees; the race-course and the fair-ground building occupying about 100 acres of it. The land was donated to the city by the state, and the total cost of improvements is \$300,000; the annual cost of maintenance is \$2,000. Ex-mayor W. A. Huff was the designer of the park. It is controlled by the mayor and council, through a park-keeper.

PLACES OF AMUSEMENT.

Ralston's opera-house and Masonic hall, each with a seating capacity of about 800, are used for theatrical purposes; concerts, etc. They pay no license as buildings, but each performance pays a license of \$5 to the city. There are no other halls in the city unconnected with churches, and there are no concert- and beer-gardens.

DRAINAGE.

No maps or surveys of the surface of Macon have ever been made, and therefore no detailed account of the system can be given here. There has been no regular plan followed with the sewers already constructed, the chairman of the street committee having had them built according to his own ideas. A city ordinance places the sewerage of the city in the hands and under the control of the city engineer, but the city council has always put the matter into the hands of the chairman of the street committee.

The mouths of the sewers now in use are fully exposed, and deliver the sewage on the swamps below the city, to the injury of the same in point of healthfulness. What flushing the sewers receive is due to rain, the deposits not being removed in any artificial way. When sewers are built the city pays the whole cost, no assessments on abutters being made.

CEMETERIES.

There are 2 cemeteries in Macon. No church-yards or private grounds for interments have ever been allowed in the city. The absence of any data renders it impossible to give the number of interments.

MARKETS.

There are no public or corporation markets in the city, supplies being obtained from private stores or from hucksters' wagons. Farmers are allowed to sell their own produce, from wagons, without paying a license.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief health organization in Macon is the board of health, composed of 9 members, one of whom is a physician, appointed annually by the mayor and council, and under full control of the mayor and aldermen. In ordinary times the expenses of the board are included in the street appropriation, and during an epidemic the expenses may be increased to such extent as the mayor and council may deem best for the interests of the city. In the absence of epidemics the board is required to keep the city in a cleanly condition and abate all nuisances, and during epidemics to have the city properly quarantined and otherwise reduce the chances of contagion. The president of the board is the executive officer; he serves without compensation. One assistant health officer or inspector is employed, who has full police powers. The clerk of the council is also clerk of the board. The city carts and chain-gang are placed under an inspector, who is controlled by the board. In summer, inspections are made regularly, and in winter, only as nuisances are reported. When a nuisance is reported or discovered, the inspector orders the same abated, and if his orders are not complied with, the party responsible is summoned before the mayor's court. The inspector notes all defective house-drainage, privy-vaults, cesspools, sources of drinking-water, etc., and orders these corrected. The board exercises no control over the conservation and removal of garbage, except to report all cases of neglect.

INFECTIOUS DISEASES.

Small-pox patients are usually placed in the hospital, situated some distance from the city. Scarlet-fever patients are neither isolated nor quarantined at home. The board takes no cognizance of the breaking out of contagious diseases in either public or private schools, as the matter is under the control of the city physician. Vaccination is compulsory, and among the poor is done at the public expense.

There is no regular system of registration of births, diseases, and deaths.

REPORTS.

The board reports to the city council, but its reports are not formally published.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its own force. The work is done wholly by hand. The streets are cleaned whenever they need it, and the work is reported as well done. The annual cost is from \$1,000 to \$1,500, and the sweepings are deposited below the city.

Removal of garbage and ashes.—The garbage is removed by the city with its own force. Pending removal it must be kept in boxes or barrels, and it is allowed to keep ashes in the same vessel with the garbage. The garbage is hauled below the city, and the final disposition of the ashes is the same. No nuisance or probable injury to health is reported to result from the improper keeping, infrequent removal, improper handling, or improper final disposal of the garbage.

Dead animals.—The carcasses of any animals dying within the city must be removed by the owner and hauled to certain localities selected by the mayor and council. The total number of dead animals removed annually is about 500 or 600.

Liquid household wastes.—But a small portion of these go into sewers. They are mostly thrown into vaults or cesspools, or emptied in the yards on the premises. The cesspools are porous, are not provided with overflows, do not receive the wastes from water-closets, and when cleaned, the contents are buried on the premises. The house-lots are very large, and the streets are from 120 to 180 feet wide; hence there has been very little contamination of drinking-water from the escape of the contents of either vaults or cesspools.

Human excreta.—Water-works having just been erected, the city may be said to depend exclusively on privy-vaults. About 5 per cent. of the houses in the city have water-closets, all of which deliver into the sewers. About 20 per cent. of the vaults are nominally water-tight. The privy-vaults are cleaned twice a year, the health-inspector having the matter in charge. The night-soil is buried on the premises.

Manufacturing wastes.—The wastes from founderies are used for filling washouts and cuts in the streets, while the wastes from cotton factories are sold or hauled away.

POLICE.

The police force of Macon is appointed by the mayor, subject to confirmation by the board of aldermen, and governed by the mayor and council. The executive officer is the chief of police, with a salary of \$1,000 per annum. He has immediate control of the police force, and collects all executions issued by the mayor and council. The remainder of the force consists of 1 first lieutenant at \$780 a year; 1 second lieutenant at \$720 a year; and 18 privates (patrolmen) at \$600 a year each. The uniform is blue in summer and gray in winter, and is furnished by the city at a cost of about \$45 to each man. The men are equipped with clubs and pistols, and their hours of service are 12 on and 12 off. The force patrols 116 miles of streets.

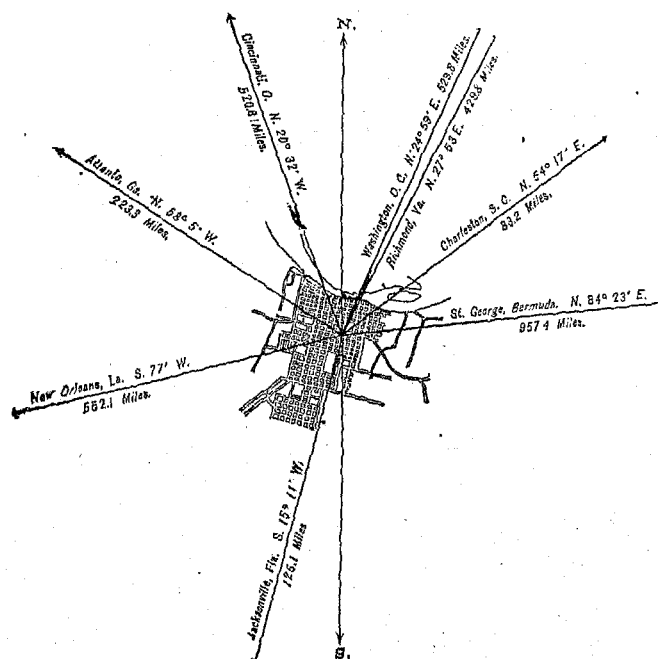
During the past year there were about 1,600 arrests made, the principal causes being for drunkenness, fighting, shooting in the city, and violations of license ordinance. The cases were either dismissed or the parties were fined or put to labor on the streets. There was but little property reported to the police as lost or stolen during the year, and what was recovered was returned to the owners. The force is required to co-operate with the fire department so far as to protect property from theft at fires. Special policemen for duty at railroads, etc., are appointed by the mayor, but they have no connection with the regular force. The yearly cost of the police force is something over \$14,000.

SAVANNAH, CHATHAM COUNTY, GEORGIA.

POPULATION

IN THE
AGGREGATE,
1800-1880.

	Inhab.
1700.....	.....
1800.....	5,106
1810.....	5,215
1820.....	7,523
1830.....	7,770
1840.....	11,214
1850.....	15,312
1860.....	22,202
1870.....	28,235
1880.....	30,709



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	13,936
Female.....	16,773
Native	27,715
Foreign-born.....	2,994
White.....	15,041
Colored	*15,668
*Including 2 Chinese and 12 Indians.	

Latitude: 32° 5' North; Longitude: 81° 6' (west from Greenwich); Altitude: 1 to 50 feet.

FINANCIAL CONDITION:

Total Valuation: \$15,060,445; per capita: \$490 00. Net Indebtedness: \$3,425,000; per capita: \$111 53. Tax per \$100: \$2 93.

HISTORICAL SKETCH.

On June 9, 1732, George II, King of England, granted to a company of benevolent gentlemen, among whom James Oglethorpe was a leading spirit, a charter for a province to lie between the Savannah and the Altamaha rivers, to which they wished to send certain poor people as colonists. A party was organized with great care, and in November, 1732, under the charge of Oglethorpe, it sailed in the galley "Nan" for America. After a long voyage they reached Charleston January 13, 1733, where they were hospitably received, the citizens doing all in their power to make the colonists comfortable. Leaving his party in Charleston, Oglethorpe, in company with Colonel William Bull, of South Carolina, sailed in a small vessel for the Savannah river, to select a site for his

colony. Ascending the river about 18 miles, his attention was attracted by a bluff about 50 feet high, on the south side of the river, and covered with a thick growth of pine trees. Here he landed, and ascending the bluff found the top partly cleared of trees; a small party of Indians and a single white trader were the only inhabitants of the place. Oglethorpe was so pleased with the location that he determined to establish his party there. Considerable difficulty was experienced in obtaining the consent of the Indians to a settlement, but a conditional assent was finally given, and Oglethorpe returned to Charleston to conduct his emigrants to their new home.

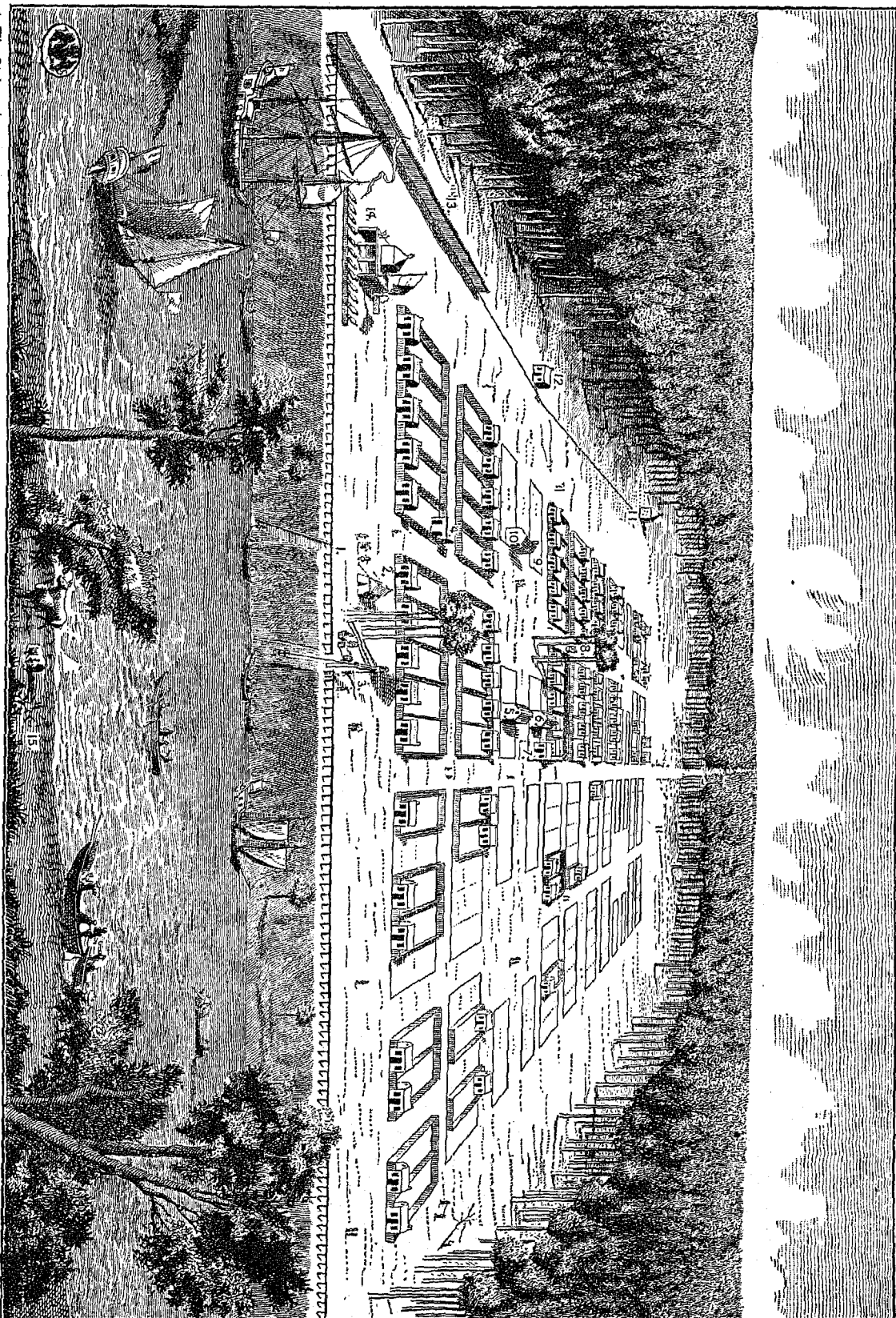
The party reached the bluff on February 1, 1733, and immediately began to prepare the spot for their town, which they decided to call "Savannah", from the river which flowed at their feet. No time was lost. The land was cleared, timber was hewn, and palisades were erected; the colonists in the mean while living in tents, which they had pitched around four large pine trees that stood not far from the edge of the bluff. Scarcely had the tents been pitched when a party of Indians came with friendly greetings, and the friendship thus begun was strengthened by a treaty made in May with the chiefs of the Creek nation. The party on leaving England included about 125 persons, and in July the number was increased by the arrival of 150 new-comers. A meeting was held July 7, 1733, and names were assigned to the wards, streets, and squares, for the streets had already been marked out, running at right angles, with spaces left at the intersection of every other street for public squares. The town and its people were divided into 4 wards, and each of these into 16 tithings. The 5 streets which had already been laid out were named Bull, Whittaker, Drayton, Saint Julian, and Bryan, in honor of South Carolinians who had greatly assisted the colonists. Lots were drawn for the land, a town court of record was established, bailiffs were appointed, a jury was empaneled, and the first court in Georgia was held. Four days later a party of Hebrews arrived and were welcomed by Oglethorpe. This act caused considerable dissatisfaction in England, but the leader refused to ask these new-comers to depart, though eventually all but 3 families were attracted away by the superior advantages of Charleston. In March, 1734, a party of Salzburgers arrived, and were established at a place 24 miles distant, which they called "Ebenezer".

After seeing his colony firmly established, Oglethorpe left for Europe, leaving behind him a town of 91 houses and a prosperous company. During his absence one of the three bailiffs left in charge drew all the authority into his own hands, and so mismanaged affairs that Oglethorpe, on his return in 1736, had much difficulty in allaying dissatisfaction. He was accompanied at this time by Charles Wesley and John Wesley, the founders of Methodism, and a year later the Rev. George Whitfield came to Savannah. Three laws of the town deserve mention, as they show the spirit of the founders of Georgia: All distilled liquors and brandies were prohibited under heavy penalties; no slavery or negroes were allowed; and all persons going among the Indians were compelled to give bonds for good behavior. The estates of the settlers were entailed, and this was regarded as very fortunate, for otherwise the lands might have fallen into the hands of a few men. The security of Savannah was threatened by an invasion of the Spaniards from Florida, but Oglethorpe, with a band of colonists, determined to protect their homes, met and repulsed the invaders. After this the progress of the town was not again threatened, and went on rapidly, though not in the direction the trustees desired.

It was the intention of the company in England which held the charter, to devote the colony to raising wine and silk, and, in spite of the want of success which attended the attempt, this object was persisted in, and commerce and agriculture of other kinds were discouraged as long as the company held its charter. As late as 1750 large bounties were offered to those who would raise silk and wine, and in 1751 a factory was built for the manufacture of silk goods. One enterprising citizen, however, established a commercial business in 1744, and by 1749 the exports of the town were valued at \$10,000, while the culture of rice and indigo became of such value that the trustees began to doubt the wisdom of persisting in their first design. On January 15, 1751, a general assembly of Georgia met at Savannah and drew up a list of complaints which they presented to the council of the trustees, and in 1752, the charter having expired, no effort was made to renew it, and Georgia became a royal province. The first royal governor, John Reynolds, was sent to the colony in 1734 and remained until 1737, when he was replaced by Henry Ellis, who, at his own request, was recalled in 1760, and Sir James Wright was appointed. These three men were the only royal governors of Georgia, for during the term of the last the Revolution began.

The stamp act was very unpopular in Savannah, and the agent for the sale of stamps was compelled to flee the town; but in 1775, when a provincial congress met in Savannah and delegates were elected to the Continental Congress, they refused to go, saying that the convention which elected them did not represent a majority of the people of the province. Many of the townspeople were apathetic in regard to resistance to England, as it would injure their commerce, which in 1773 amounted in export alone to \$379,422, while not a few openly favored the mother country; yet when the news of the battle of Lexington reached Savannah all thought of submission to England vanished. The town was destined to be the scene of much fighting. In January, 1776, an attempt was made by the British to capture Savannah, but it failed of success; and the town was the meeting-place of the convention which framed the constitution of Georgia, adopted finally February 5, 1777. A second attack by the British in December, 1778, proved successful; and, in spite of the determined attempt of a combined force of French and Continentals under Estaing and Lincoln, in 1779, to recapture the town, during which Count Pulaski lost his life, it remained in British hands until July, 1782, when it was evacuated.

View of Savannah, as it stood the 29th March, A. D. 1784.



1. The Stairs going up.
2. Mr. Ogilthorpe's Tent.
3. The Crane and Well.
4. The Tavern and Court House.
5. The Public Mill.
6. The House for Strangers.
7. The Public Oven.
8. The Stone Well.

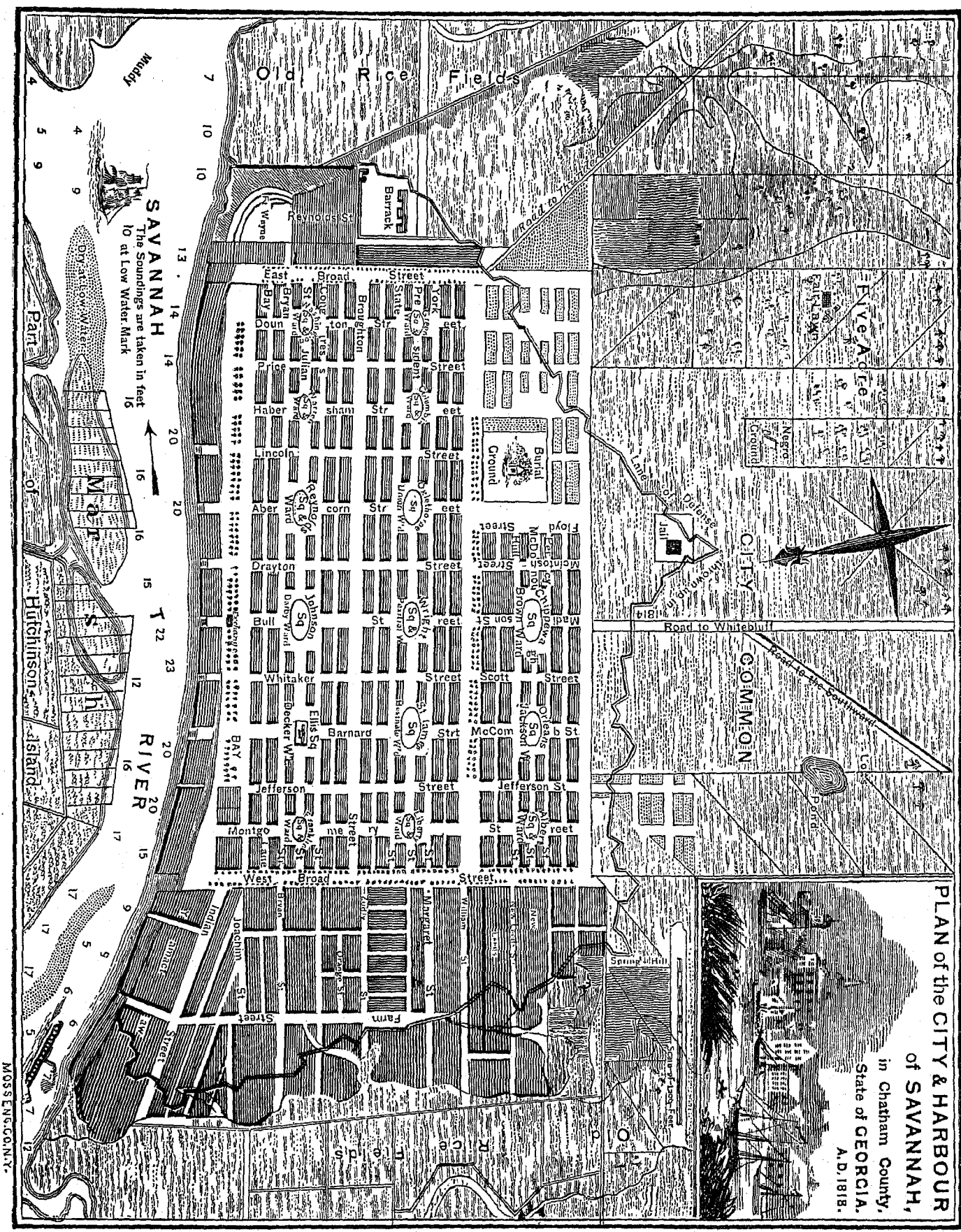
To the Hon. the Trustees for establishing the Colony of Georgia in America.
This View of the Town of Savannah, is humbly dedicated by their Obedient

Worshipful and most Obedient Servant,

Wm. Do Eleonard de la Paroisse.

John Gordon.

9. The Lot for the Church.
10. The Public Stores.
11. The Fort.
12. The Parsonage House.
13. The Pallisades.
14. The Guard House and Battery of Cannon.
15. Hutchinsons Island.



PLAN of the CITY & HARBOUR
of SAVANNAH,
in Chatham County,
State of GEORGIA.
A.D. 1818.

MOSS ENG. CO. N.Y.

The rule of the British had done great injury to the commerce of the town, and under the terms of the capitulation the British merchants already established there had been allowed to remain unmolested; yet the people overcame all obstacles placed in their way, and Savannah was soon as prosperous as ever. In 1789 it was incorporated as a city. Seven years later it met with a great misfortune, the first of a series of severe losses. On November 26, 1796, a fire broke out, and before it could be extinguished 229 buildings had been destroyed. The loss was more than \$1,000,000, but courage and energy soon enabled the citizens to recover their position. A census taken in 1798 showed a population of 6,226, and the exports in 1800 were valued at \$2,155,982. The first shipment of cotton was made in 1788, a single bale being exported by Thomas Miller. The city suffered considerable loss from a storm, September 8, 1804, which destroyed many public and private buildings, while the river carried 18 vessels on to the wharves and injured many others. During the war of 1812 the city was in constant fear of attack, and was carefully fortified, but no attempt was made to take it.

The first steamship built in America was owned and projected in Savannah, and bore the name of the city. It was built in the north, and April, 1819, arrived in the city from New York. A few days later it steamed for Liverpool, arriving there after a passage of 22 days, on only 8 of which sails were used. The "Savannah" was the first steamship which crossed the Atlantic, and its arrival created great surprise in England.

A second great fire occurred in January, 1820, destroying 463 houses and entailing a loss of \$4,000,000; and the city had hardly recovered from the shock when an epidemic of yellow fever broke out. The disease was brought from the West Indies and spread rapidly, attacking 239 persons before it could be checked. A census taken in October showed that only 1,494, from a population of 7,523, still remained in the city. The year 1825 was memorable for the visit of Lafayette. During his stay the distinguished guest assisted in laying the corner-stones of the Pulaski and the Greene monuments.

The importance of Savannah as a cotton port came principally with the construction of railroads to the city, and notably by the building of the Georgia Central railroad. This road was projected in 1834, and a company was formed in the following year; the trains began running regularly in 1838, but the line was not completed to Macon, the terminus, until 1843. This railroad greatly increased the cotton receipts of Savannah, and, with the roads since constructed, has made the city second only to New Orleans in the amount and value of its shipment. In 1854 the yellow fever appeared again, and in a short time spread throughout the city. It reached its height September 12, when 51 interments were reported; 591 deaths from the fever occurred. While the fever was still raging a severe storm caused great damage to buildings and shipping.

The city early in the civil war became an object of attack by the Federal army, and in February, 1862, fort Pulaski was taken by it. Savannah, however, remained in confederate hands until December, 1864, when it was taken by General Sherman at the end of his "march to the sea". A large fire in 1865 laid part of the city in ashes.

With the close of the civil war the prosperity of the city soon returned, and in 1873 its exports were valued at \$52,644,053 75. Cotton is, of course, the staple of the export trade, but rice, timber, and naval stores enter largely into the trade. Indeed, the growth of Savannah since the war has been phenomenal. It has large manufacturing establishments; three important railroad systems center in the city; it has three horse-railroads; while regular lines of steamships run to New York, Philadelphia, Boston, and Baltimore. The inland trade is large and important. Savannah is a beautiful city. The streets are laid out regularly, intersecting one another at right angles, while at the intersection of every other street small parks are made, which are planted with fine trees and add greatly to the beauty and healthfulness of the city. It is lighted with gas, and a good water-supply was introduced in 1854. Many fine buildings add to the attractiveness of the city, among them several church edifices. Within easy reach are a number of pleasant resorts; and Bonaventure cemetery, the resting-place of Savannah's dead, is a spot of remarkable beauty. The schools of the city are well regulated and good. The Chatham County academy was founded in 1788, and early became a leading institution. Free schools were begun in 1816, and the system of to-day is considered a good one. The churches are many, the various charities large, and societies of all kinds numerous. The first newspaper was published in 1763, and to-day there are several dailies and weeklies published in the city. The health of the city in the early part of the century was not good; but the marshes have been largely cleared, under the operation of the dry-system contract, which began in 1817 and was ended in 1870, putting an end to the wet cultivation of rice in the immediate vicinity of the city; and Savannah may now be called a healthy city, though somewhat of malaria still remains. The advantages of the city, both as a place of residence and of business, are great, and the rapid growth of the past few years seems only a promise of greater things in the future.

SAVANNAH IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Savannah:

LOCATION.

Savannah is situated in latitude $32^{\circ} 5'$ north, longitude $81^{\circ} 6'$ west from Greenwich, on the south bank of the Savannah river, about 18 miles from the ocean. The city is located upon a bluff about 45 feet above the river-level, while the wharves extend along the river-front under the bluff. The lowest point is covered by 1 foot of water at high tide, while the highest point is 50 feet above mean low water, which corresponds very nearly with the sea-level. The water over the bar at the mouth of the river is 26 feet deep at mean high tide, while at mean low tide it is 19 feet deep. At Tybee island, inside the bar, the depth is 38 and 31 feet, and at the city wharves it is 16 feet. The river is navigable for steamboats to Augusta, 203 miles from Savannah. The tide flows about 45 miles up the river, the rise and fall at Savannah being about $6\frac{1}{2}$ feet. Regular lines of steamers run to and from New York, Philadelphia, Boston, and Baltimore, while many steamers ply between the city and other southern ports.

RAILROAD COMMUNICATIONS.

Three important railroad lines center in Savannah, connecting it closely with the southeastern states and cities. The Central Railroad of Georgia, terminus Macon; the Savannah, Florida, and Western railroad, terminus Bainbridge, Georgia; and the Charleston and Savannah railroad, terminus Charleston, connect with other lines at their terminal points, thus affording to the city communication with the entire country.

TRIBUTARY COUNTRY.

The country tributary to the city is devoted entirely to agriculture. Vegetables are raised in great abundance for the northern markets, and on the tide-lands near the city rice is extensively cultivated.

TOPOGRAPHY.

Savannah is situated on a plain of sandy land, about 45 feet above low-water mark, extending about a mile along the river and back from it 8 or 9 miles, varying in width from three-quarters of a mile to 2 miles. On the east and west the plain slopes gently to the level of the tide-lands, which, if unprotected by embankments, would be covered 1 foot by the tide at high water. Large marshes once hedged in the city on the east and west, but they have been drained to a large extent. The country for a radius of 2 miles is open, but beyond that distance it is well wooded.

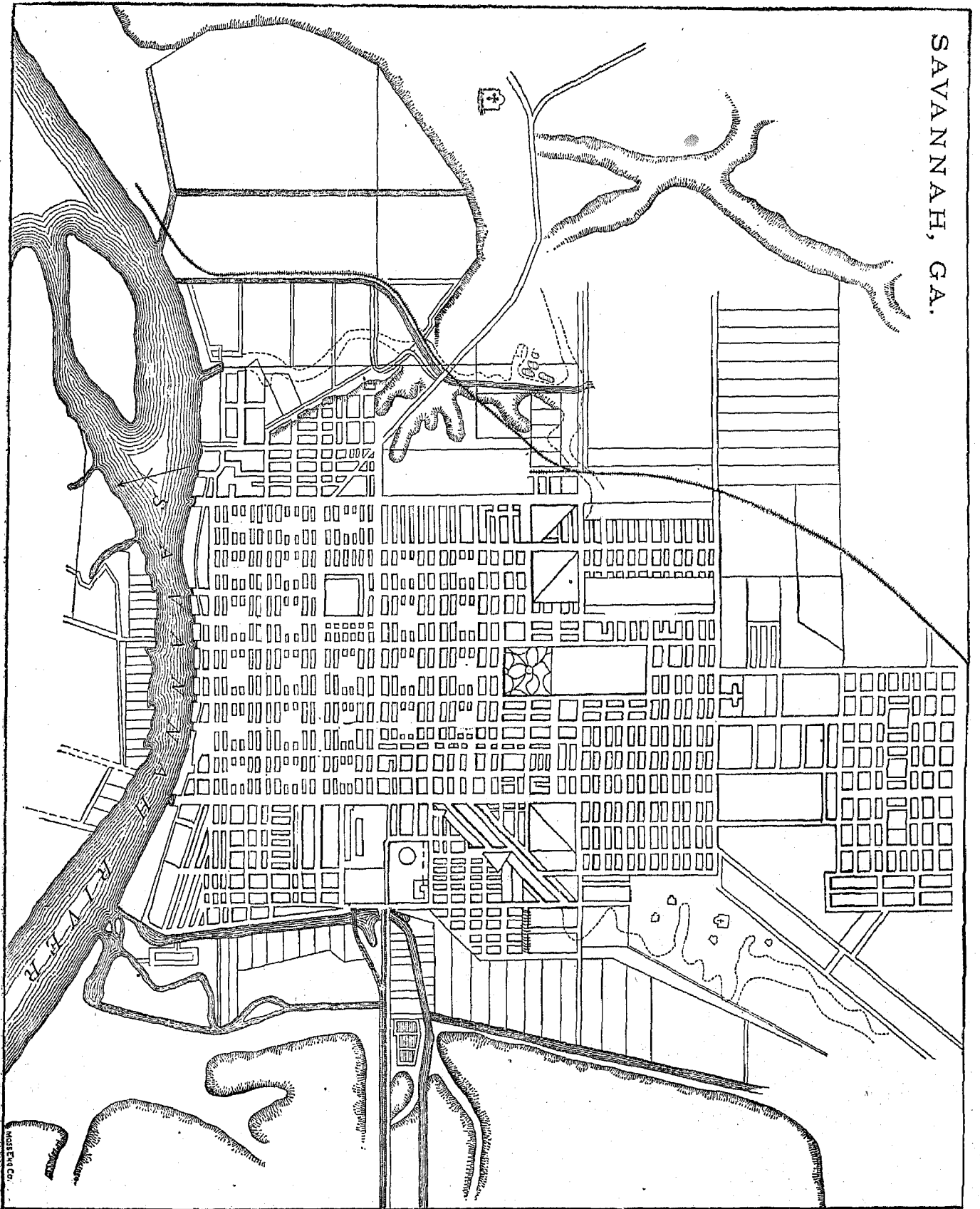
CLIMATE.

The highest recorded summer temperature is 102° ; highest summer temperature in average years, 96° . Lowest recorded winter temperature, 15° ; lowest winter temperature in average years, 30° . The series from which these figures are taken extends from 1839 to 1874. The elevation of the city above the low lands frees it somewhat from the malarial influences of the marshes, but a mild type of malaria is present at all times. Previous to 1817, when the rice-lands adjacent to the city were regularly flooded, the malaria was very injurious; but the draining of the swamp and the introduction of the dry-culture system for rice have greatly improved the health of the city. The nearness of the Gulf stream keeps the climate warm, while the winds from the south are rendered soft and mild by it. The cold and dry winds are from the north and west. The rainfall in June, July, and August is very large.

STREETS.

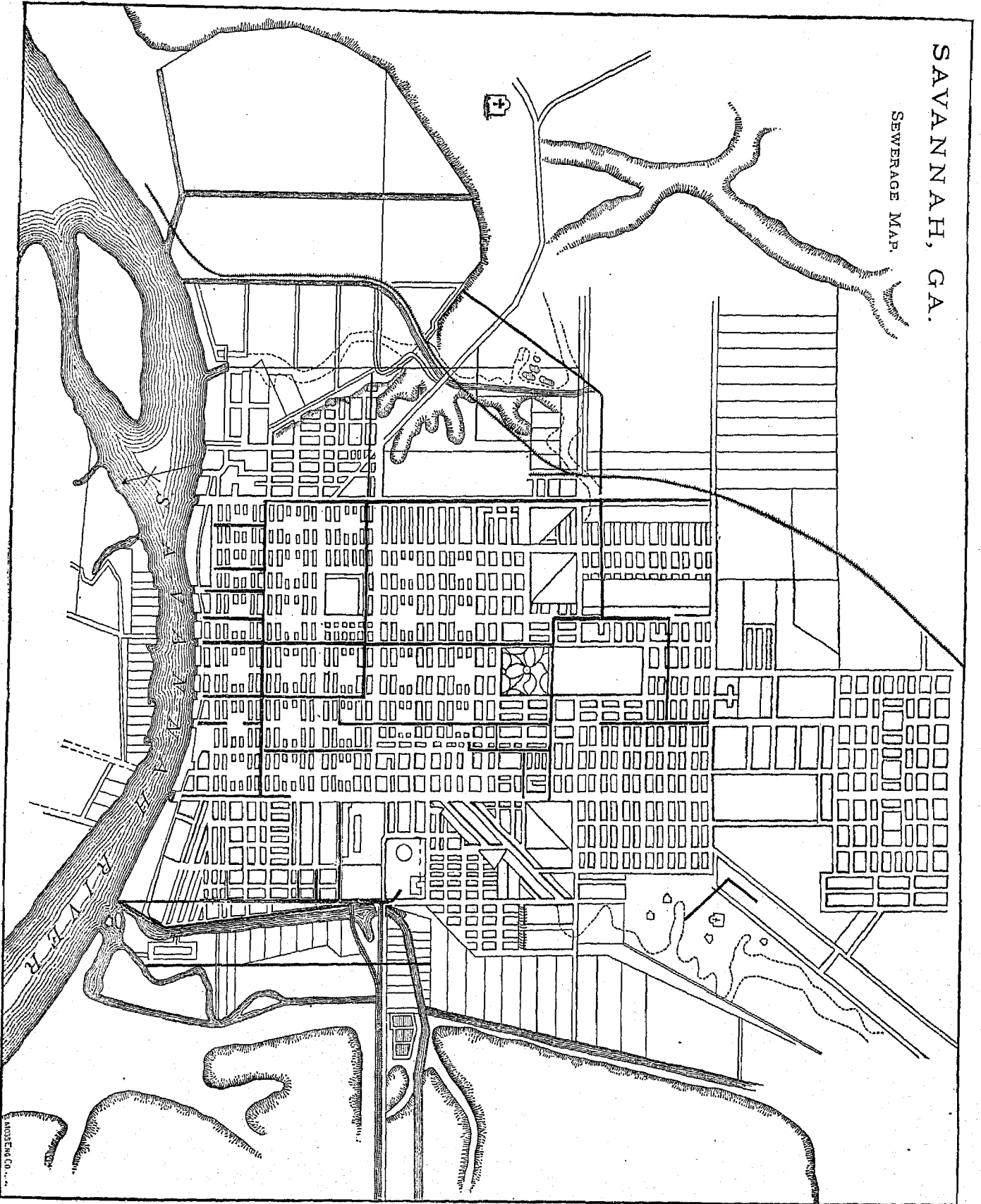
Of the streets of Savannah, $3\frac{1}{2}$ miles are paved with cobble-stones, one-half mile with stone blocks, and one-half mile with broken stone. In some streets wood pavement was laid at one time, but it has since been removed. The cost per square yard of the cobble-stone pavement is \$1; of the stone blocks the cost has differed; at present it is \$2 50, but at one time it was \$4 per square yard. The stone-block pavement is found to be both more economical than any other and easier to keep clean, only the gutters needing to be scraped in the climate of Savannah. The sidewalks are of flagstone, Philadelphia and Baltimore paving-brick, and Savannah gray brick. The gutters are of cobble-stones. Trees are planted along the sidewalks, 1 foot within the curbstone and about 30 feet apart. From 200 to 300 are planted yearly. The streets are kept in repair by day labor, at an annual cost of between \$25,000 and \$30,000. No steam stone-crusher or roller is used. There are three horse-railroad lines, each about $1\frac{1}{2}$ mile in length. The estimated number of cars is 50, and of horses 100. About 100 men are employed. The fare on all the lines is 5 cents. Omnibuses run from the hotels to the railroad stations and steamboat landings.

SAVANNAH, GA.



SAVANNAH, GA.

SEWERAGE MAP.



WATER-WORKS.

The total cost of the works for the public water-supply has been \$300,000, and they are owned by the city. Water is taken from the Savannah river and pumped into four receiving-basins, each capable of holding 1,000,000 gallons. Three Worthington single pumps, with a capacity of 1,000,000 gallons each, were erected in 1854; but since 1875 a Worthington duplex pump of 3,500,000 gallons capacity has been used, although the old ones are still retained. The superintendent of the water-works urges, in his report for 1880, the purchase of a new pump to meet the increased demands for water. The high service is supplied by pumping into a tank 20 feet in diameter and 37 feet high, placed on a brick tower 50 feet high. The pressure in the mains was found by experiment to vary from 42 pounds to the square inch near the reservoir, to only 15 pounds at Duffy and Whitchee streets. There are 22 miles of pipes and mains and 257 fire-hydrants. The average amount pumped daily is 2,000,000 gallons, the greatest amount in any one day being 2,385,000. The yearly cost of maintenance for 1880 is \$12,269 72, and the annual income for the same year was \$28,198 20, the total receipts from all sources being \$42,010 39. No water-meters are used.

GAS.

The city is supplied with gas by the Savannah Gas Light Company, a private corporation. The average daily production is 80,000 cubic feet. The charge per 1,000 feet is \$3. The city pays \$26 40 a year for each street-lamp, 588 in number.

PUBLIC BUILDINGS.

The buildings owned by the city are valued at \$450,000, and include the Exchange building, used for a city hall and offices, a market building, powder magazine, police barracks, 3 fire-engine houses, city dispensary, and stables and pound buildings. The Exchange building was built in 1799 by a joint-stock company in which the city was a stockholder. It came into the city's hands in 1812, and considerable improvements have since been made. Its value to-day is \$100,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The total area of the parks in Savannah is 60 acres. There are 23 small parks at street intersections, each containing from 1 to 1½ acre; a park of 10 acres; and an extension to the latter containing 20 acres, used as a parade-ground. The cost of laying out the parks was \$20,000, and the yearly cost of maintenance for the large one is \$2,250, and for the smaller ones \$1,000. The parks are controlled by a committee on parks.

PLACES OF AMUSEMENT.

There is 1 theater in the city, with a seating capacity of 800. There are 5 halls, each with a seating capacity of about 500, used for concerts, lectures, etc. Theaters pay a license for each performance. There are 5 concert and beer-gardens.

DRAINAGE.

The first systematic plan of sewerage was begun in 1869. There are 3 principal lines running parallel with the river. They begin at the outlet with a diameter of 6 feet and gradually diminish in size. At right angles to these are others, 3 feet in diameter, in several of the principal streets. There are also a number of sewers consisting of a single ring of brick, some 24 inches, others 30 inches, in diameter. A few cement-pipe sewers, 12 inches in diameter, have been laid in the lanes for house-drainage; all others are of brick. Most of them are laid with a rate of fall of 3 inches in 100 feet. No deposits are removed by hand. The smaller sewers are occasionally flushed.

The outflow passes through a canal to the river, except in a few instances, where the sewers empty directly into the Savannah river in front of the city. The mouths of the sewers are fully exposed. The only provision for ventilation is through the rain-water leaders of some houses.

In cases where the bottom of the sewers is below the level of ground-water they are built in a wooden cradle, constructed of ribs of 2-inch plank cut to the shape of the outside of the sewer and planked with narrow strips of inch lumber. In such places the bricks at the bottom, for a space of 15 inches or less, according to the size of the sewer, are laid without mortar, and the ground-water is said to force its way up and pass off in a continuous stream.

The entire cost of sewerage works is paid by the city. A charge is made for connections at the following rates: For the connection, \$10; for supervision, \$3; for permit, \$1, making a total charge of \$14.

No information is furnished of the extent or cost of sewerage. A map published in 1876, showing sewers, has no scale from which their extent could be ascertained.

CEMETERIES.

There are 3 cemeteries connected with the city, but only 1 is entirely within its limits.

Laurel Grove Cemetery, in the extreme southwestern part of the city, contains 100 acres. Since its opening in 1852 there have been 26,937 burials within this cemetery—11,330 of white and 15,607 of colored persons.

Cathedral Cemetery is situated $1\frac{1}{2}$ mile east of the city. It is controlled by the Catholic church. No information as to its area or the number of interments was furnished.

Bonaventure Cemetery is situated on the Warsaw river, about 4 miles from Savannah, and it is said to be one of the most beautiful resting-places of the dead in the world. No information as to its area, condition, or the number of interments within it was furnished.

Laurel Grove cemetery is controlled by the city, through a keeper. Graves are made from 5 to 6 feet deep. No interment is allowed to be made until the sexton has received a certificate of death signed by a physician, or coroner, or the health officer. Any violation of this rule is punishable by fine or imprisonment.

MARKETS.

A market-building, 150 by 200 feet, was erected in 1871 at a cost of \$145,000. A clear space of 50 feet is left all around the building, and market carts and vegetable and huckster wagons are allowed to occupy the portion of this space nearest the market. It has a meat, a vegetable, and a fish department. Meat stalls rent at from \$90 to \$135 per year; fish stalls at \$135; and vegetable stalls at \$50. The income from the stalls in 1880 was \$3,587 65, and from stores in the basement \$2,598 07. The total rental, including collections from vendors, was \$8,688 70. The market is open every day except Sunday, from 5 to 9 a. m., and on Saturday from 2 to 10 p. m. The gross amount of annual sales was not stated. Nearly all the retail provision-stores obtain their supplies from the market.

SANITARY AUTHORITY—BOARD OF SANITARY COMMISSIONERS.

The chief sanitary authority of the city is vested in a board of sanitary commissioners, consisting of 2 aldermen, 3 citizens appointed by the mayor, and the health officer and the mayor as members *ex officio*. The board thus constituted has no fund at its disposal, and must obtain the consent of the city council to each item of expense. The board was not organized until 1877, and as no epidemic has occurred since then, no statement of its powers to increase its expenditures can be made. It has authority to abate all nuisances within the extended limits of the city, *i. e.*, 1 mile beyond the corporate limits. Its authority in presence of an epidemic has never been tested, but the health officer reports that it would meet any emergency. The board meets regularly once a fortnight, but in practice comes together much oftener. The chief executive officer is the health officer, salary \$1,000 a year; his duties are many, but may be summed up in saying he has power to abate nuisances and carry out the orders of the board. An assistant health officer, a physician, is employed as quarantine officer, and stationed at the quarantine station at the mouth of the Savannah river. He has power to make arrests, and reports to the board. Inspections are made during the summer months, by a detail from the police force, once a week, while during the winter they are made but once a month. Three members of the board are physicians.

When nuisances are found or complained of, they are immediately inspected and abated if possible by the person causing them; if not, then by the authorities. Defective privy-vaults, cesspools, and sources of drinking-water are treated as nuisances, and are abated as soon and as well as possible. The sewers and streets are kept as clean as possible. Nothing is done in regard to the pollution of streams. The board compels the removal of garbage daily to some place beyond the extended limits of the city. All sextons are required to obtain a certificate of death signed by an attending physician, the health officer, or a coroner, stating the cause of death, and name, age, sex, etc., of the deceased, before making any interment, under penalty of not more than \$100 fine or 30 days' imprisonment. When any death occurs where no physician has attended, the health officer must view the body and furnish the certificate mentioned above, unless the case is one calling for the action of a coroner. No body can be brought within the city unless accompanied by a proper certificate of death; and if death was caused by small-pox, yellow fever, or other pestilential disease, the body can be admitted only by a permit from the board.

INFECTIOUS DISEASES.

Small-pox patients are removed to the hospital grounds, 4 miles from the city, unless they refuse to be moved; in the latter case they are quarantined at home, flags are displayed to warn passers, and other precautions are taken to prevent the spread of the disease. Scarlet fever has not been epidemic since the board began to act, and little attention has been paid to it. Those suffering from the disease are not isolated or quarantined in any way. Should contagious diseases break out in the schools the board would not hesitate to take any action deemed necessary for the public health. Vaccination is not compulsory, but is done free of expense to those wishing it, either at the cost of the city or of charitable physicians. A quarantine station is maintained at the mouth of the river at all times.

The registration of births, diseases, and deaths is very irregularly attended to.

REPORTS.

The board of sanitary commissioners makes no report, although records are carefully kept. A summary is published with the annual reports of the city as a report of the health officer.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned by the city scavenger, a contractor paid by the city to remove all offal, dirt, and rubbish from streets and houses. The work is done entirely by hand, and whenever there is need for it. The sweepings are taken 1 mile beyond the city limits and there disposed of. The contractor receives about \$15,000 a year for his labor.

Removal of garbage and ashes.—Garbage and ashes are removed by the scavenger. While awaiting removal garbage is generally kept in barrels or boxes placed in the rear of the house-lots adjoining the lanes. It may be kept in the same vessel with ashes. Garbage and ashes are disposed of in the same way as the street-sweepings. The cost of the service is included in the general contract of the scavenger.

Dead animals are removed at the cost of the owner to some point not less than 1 mile beyond the city limits.

Liquid household wastes.—All liquid wastes of the household are disposed of alike. Where sewers exist the wastes run into them, but much the larger portion are thrown broadcast into the lanes, and run into the street-gutters. Less than one-third of the houses are connected with the sewers, and not more than 1 in 20 have cesspools. When cesspools are used they are generally porous and without overflows. When full they are cleaned out by the odorless-excavator process, the city owning the apparatus. As the soil is a fine sand the filtration from cesspools is very rapid, and well-water is perceptibly contaminated from overflow or soakage. The street-gutters are flushed only by the rain, but as the rainfall is large they give no trouble.

Human excreta.—The proportion of the houses in the city which are provided with water-closets is not known; by far the larger proportion depend on privy-vaults. A charge, varying with the size of the vault, from \$3 to \$7 per annum is levied on all persons using privies, to meet the expense incurred by the city in removing night-soil and in making the vaults water-tight. The contents are removed by the odorless-excavator process. The cost of this service during the past year was \$14,659 74. The dry-earth system is not used. Night-soil is removed at least 1 mile beyond the city limits, and there used as manure by the market-gardeners. As the water-supply comes from the Savannah river, it is little affected by the use of night-soil as manure on its banks.

Manufacturing wastes.—With the exception of a paper-mill, there are no factories creating wastes which need to be disposed of. The wastes from the paper-mill pass off through one of the public sewers.

POLICE.

The officers of the police department of Savannah are chosen by the mayor and aldermen; the privates are appointed by the mayor, on recommendation of the chief of police, and the appointments submitted to the council for confirmation. The chief executive officer is the chief of police, salary \$1,800 per annum, who has the general charge of his department. The rest of the force consists of 2 lieutenants, salary \$1,200 a year each, 4 sergeants, salary \$900 a year each, and 50 privates, salary \$720 a year each. The uniform is a dark-blue frock coat with brass buttons, dark-blue trousers with white belt, and a cork helmet, United States regulation pattern, covered with black cloth. The city furnishes each man with his uniform. The men are armed with mahogany batons 22 inches long, navy revolvers, and duplex police whistles. They are on duty 6 hours each day and 6 hours each night, and the beats are about 4 miles each. Mounted policemen patrol the remote portions of the city.

During the past year 1,749 arrests were made, the principal causes being drunkenness and disorderly conduct. The number of station-house lodgers for the year was 602, as against 437 in 1879. No meals are given to these lodgers. A detail of 1 sergeant and 8 privates reports for duty to the chief engineer at all fires, and policemen are detailed for duty as sanitary inspectors. Special policemen are appointed by the mayor for the railroad and steamship companies, and these specials are under the command of the chief of police. The total cost of the department for 1880 was \$45,000.

FIRE DEPARTMENT.

The fire department is organized on the paid system, and is controlled by the chief engineer and one assistant. The apparatus consists of 4 steam fire-engines, fully equipped, 3 one-horse hose-reels, 1 hook-and-ladder truck, and 4,800 feet of hose. There are 9 horses owned by the department. Two auxiliary hose companies give their assistance. During the past year there were 36 alarms of fire, 4 of them being false. The gross amount of property destroyed was \$22,073 37, all but \$500 of which was more than covered by insurance. A fire-alarm telegraph is in use. The total cost of the department is stated by the mayor in his annual report for 1880 at \$14,194 69.

SOCIAL STATISTICS OF CITIES.

COMMERCE AND NAVIGATION.

[From the reports of the Bureau of Statistics for the fiscal years ending June 30.]

Customs district of Savannah, Georgia.	1879.	1880.
Total value of imports.....	\$429,519	\$483,802
Total value of exports:		
Domestic	\$21,327,235	\$23,992,364
Foreign	None.	None.
Total number of immigrants	None.	None.

Customs district of Savannah, Georgia.	1879.		1880.	
	Number.	Tons.	Number.	Tons.
Vessels in foreign trade:				
Entered	345	238,174	265	183,895
Cleared	286	193,014	244	170,092
Vessels in coast trade and fisheries:				
Entered	319	400,048	339	427,293
Cleared	306	431,450	338	443,570
Vessels registered, enrolled, and licensed in district..	71	6,347	72	14,810
Vessels built during the year	3	40	5	67

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Savannah for 1880, being taken from tables prepared for the Tenth Census by B. Frank Gray, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries.....	120	\$1,102,970	996	68	66	\$447,640	\$2,457,006	\$3,390,297
Boots and shoes, including custom work and repairing.....	7	1,920	10			4,738	4,071	12,110
Bread and other bakery products.....	15	71,250	103		15	30,342	208,240	272,124
Brick and tile.....	3	59,500	62	1	2	13,900	11,587	33,900
Carpentering	9	12,875	57			28,335	60,044	107,389
Carriages and wagons (see also Wheelwrighting).....	3	6,800	17			7,417	7,000	20,535
Flouring and grist-mill products.....	5	121,000	57			25,096	338,225	405,520
Foundry and machine-shop products.....	7	64,000	84	3	6	50,197	68,683	176,954
Lumber, sawed	4	43,000	78		5	16,904	100,000	135,292
Mineral and soda waters.....	3	6,300	15			5,834	4,364	19,248
Painting and paperhanging	8	36,775	54			31,003	25,343	80,850
Plumbing and gasfitting.....	6	7,900	20			8,571	13,874	31,100
Printing and publishing.....	4	104,800	109	2	14	66,603	52,600	140,560
Saddlery and harness	3	30,500	8			4,434	4,600	13,050
Tinware, copperware, and sheet-iron ware	6	44,000	19			9,861	22,700	46,000
Tobacco, cigars and cigarettes	11	8,000	32	1	7	12,311	14,253	34,452
Wheelwrighting (see also Carriages and wagons)	11	22,950	58		3	25,156	22,530	65,901
All other industries (a)	15	461,900	213	61	14	106,938	1,490,550	1,801,372

a Embracing blacksmithing; coffins, burial cases, and undertakers' goods; confectionery; cooperage; cotton goods; lumber, planed; marble and stone work; paper; rice cleaning and polishing; stencils and brands; and tar and turpentine.

From the foregoing table it appears that the average capital of all establishments is \$9,191 42; that the average wages of all hands employed is \$396 14 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$24,761 87.

FLORIDA.

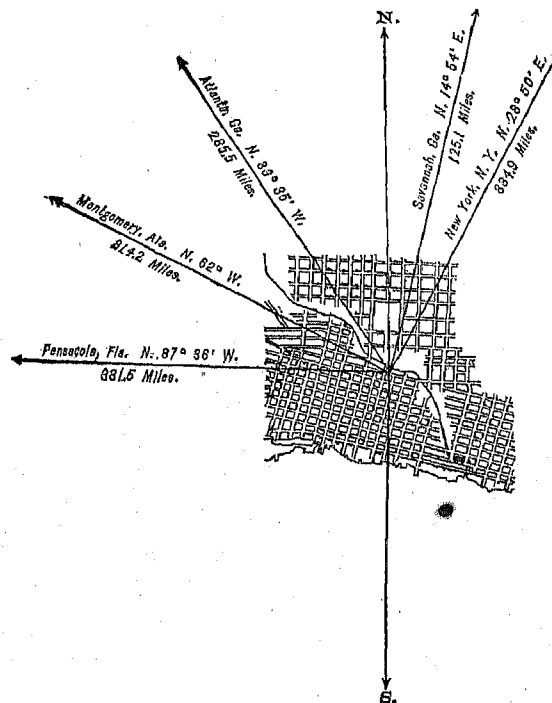
JACKSONVILLE,

DUVAL COUNTY, FLORIDA.

POPULATION

IN THE
AGGREGATE,
1850-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	1,045
1860.....	2,118
1870.....	6,912
1880.....	7,650



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	3,758
Female.....	3,892
Native	6,920
Foreign-born	730
White.....	3,991
Colored	*3,659

* Including 1 Chinese.

Latitude: 30° 20' North; Longitude: 81° 39' (west from Greenwich); Altitude: 1 to 40 feet.

FINANCIAL CONDITION:

Total Valuation: \$2,676,990; per capita: \$350 00. Net Indebtedness: \$270,916; per capita: \$35 41. Tax per \$100: \$3 10.

HISTORICAL SKETCH.

Jacksonville, the capital of Duval county, was originally settled about 1828. For the first decade the growth was slow, aggregating only about 800 persons, exclusive of the refugees driven in by the Seminole war. During the next ten years the accession was very gradual, after which, owing to the establishment of numerous lumber-mills in the town and vicinity, the population increased more rapidly, which increase was maintained until the outbreak of the civil war. During the war the place was almost depopulated and destroyed by fire. Previous to this time the business portion of the city had been twice destroyed by fire and rebuilt.

Since the close of the war Jacksonville has seen her best days. Her site has been rebuilt and more than rebuilt. With the late attention that has been paid to the state the situation of the city has been entirely in its favor, and it receives annually large numbers of excursionists and tourists, as well as prospective settlers. A large proportion of the present population of Jacksonville is composed of people of various nationalities and from the North. The cause of the late prosperity is to be found in the fact of its being a port of entry on the most important river of the state, that its railroad facilities are good, and that there is a good prospect of an improvement of its harbor, allowing vessels of a larger class to enter. Its relative importance in a state so sparsely settled as Florida is very great. It is, and from its favorable position will probably long continue to be, the commercial metropolis of the state, the lumber and cigar industries taking the lead.

JACKSONVILLE IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Jacksonville:

LOCATION.

Jacksonville lies in latitude $30^{\circ} 20'$ north, longitude $81^{\circ} 39'$ west from Greenwich, on the left bank of the Saint John's river, 25 miles from its mouth and 252 miles east of Tallahassee. The altitudes above sea-level are: Average, 38 feet; lowest point, 1 foot; and highest point, 40 feet. Although 25 miles from its mouth, the river is here almost like an inlet of the sea, and affords a fine harbor. The draught of water in front of the city and in the channel averages 50 feet, but, owing to obstructions at the mouth of the river, vessels of large size are prevented from taking advantage of it. The river and its tributaries afford about 600 miles of interior communication with a country which is rapidly settling up with towns and agricultural districts.

RAILROAD COMMUNICATIONS.

Jacksonville is the eastern terminus of the Florida Central railroad, connecting at Lake City with the Jacksonville, Pensacola, and Mobile railroad to Tallahassee, and also, at Baldwin, with the Atlantic, Gulf, and West India Transit railroad, for Cedar Keys on the south and Fernandina on the north.

TRIBUTARY COUNTRY.

The land lying immediately upon the river is devoted largely to the cultivation of fruits—especially those belonging to the citrus family—cotton, rice, sugar-cane, corn, sweet potatoes, and garden vegetables of almost every description, the latter being raised for early export to the North. The products of the forest are yellow pine, cypress, red bay, live-oak, and other useful and ornamental woods. The country tributary to the lower Saint John's is mostly undulating, and in some cases swampy, but when reclaimed forms the most fertile lands.

TOPOGRAPHY.

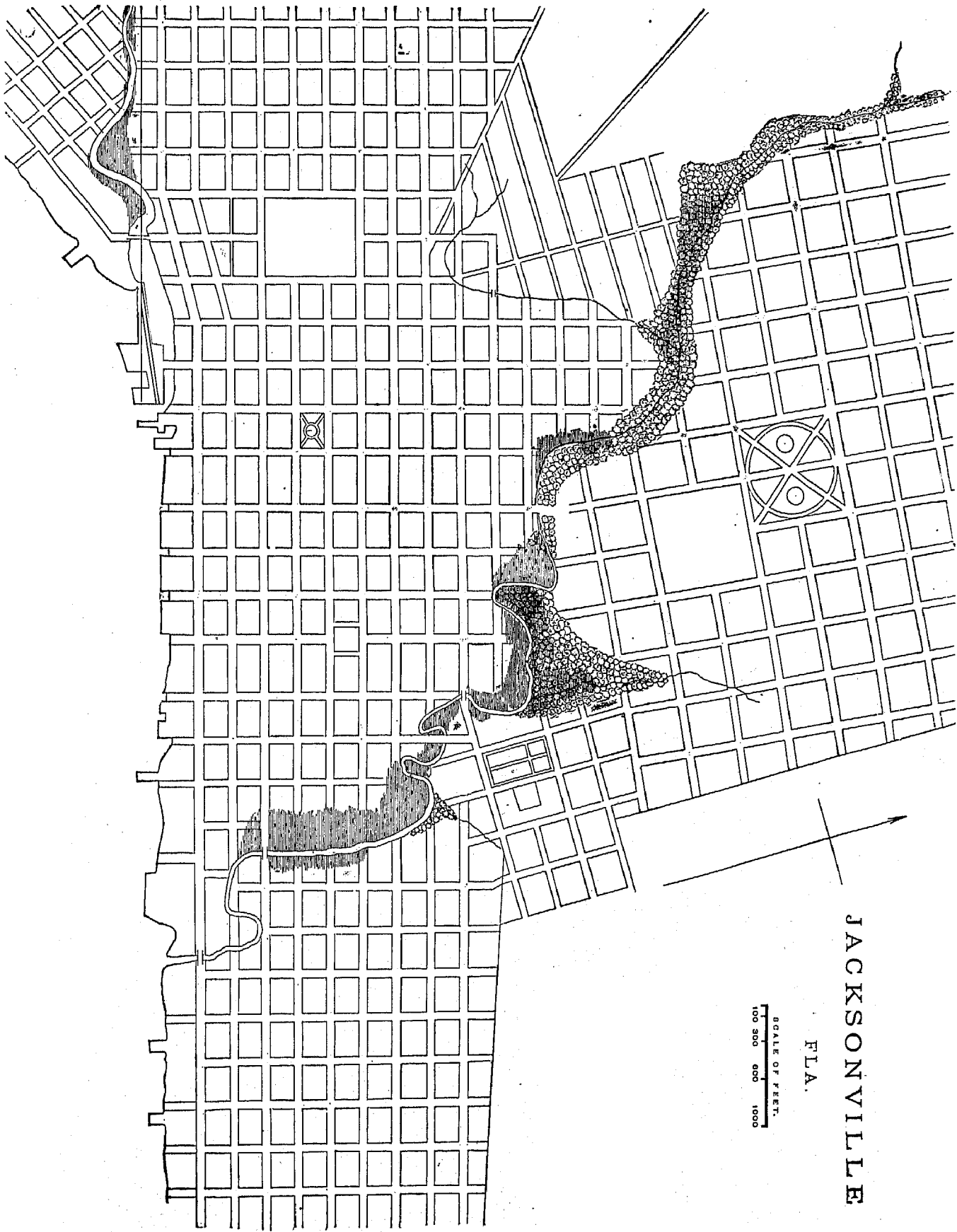
The surface soil is sandy, mixed with calcareous masses derived from comminuted shells, having a substratum of clay at a depth of from 1 to 10 feet below the surface, and this rests upon a rock of calcareous and Tertiary formation. The rock is ordinarily reached at a depth of from 20 to 30 feet below the surface, and crops out in the river, in front of the city, 28 feet below mean low water. The site is sufficiently rolling to admit of easy drainage. Marshes are interspersed throughout the adjacent country, about half of which is wooded. The soil within a radius of 5 miles does not vary from that of the site described.

CLIMATE.

Highest recorded summer temperature, 104° (1879); highest summer temperature in average years, 97° ; mean summer temperature, 81.82° . Lowest recorded winter temperature, 16° (1851); lowest winter temperature in average years, 30° ; mean winter temperature, 56.33° . Mean annual temperature (1839 to 1870), 68.98° . The influence of the adjacent waters is to equalize the temperature. The adjacent marshes have, in some localities, a tendency to produce malaria of a mild type, which is generally dispersed by the breezes blowing across the peninsula. The prevailing winds are from the northeast and from the southwest. During the summer the latter come in at one hour or another every day. Very high winds or gales are of very rare occurrence.

STREETS.

Jacksonville has 17 miles 640 feet of streets, none of which are paved. Sidewalks on the business streets are paved with stone or wood, but the greater part are paved with wood. Trees are planted for shade on both sides of the streets, about 10 feet from the fence-line, and from 30 to 40 feet apart. The streets are kept in repair by day work, but the cost is not separated from other street work. There are no horse-railroads or omnibus lines in the city.



JACKSONVILLE

FLA.

SCALE OF FEET.
100 300 600 1000

WATER-WORKS.

The water-works are just being completed by the city at a total cost of \$100,000. The system will be direct pumping, with stand-pipe, and the pressure will be for domestic purposes 35 pounds and for fires from 75 to 80 pounds to the square inch. It has been decided to use the Crown water-meters on all services.

GAS.

The gas-works are owned by a private company. The daily average production is 13,000 cubic feet. The charge per 1,000 feet is \$3. The city pays \$28 per annum for each street-lamp, 79 in number. The yearly income from meter-rates is given as \$11,400.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Jacksonville has a single acre of ground, near the center of the city, used as a park.

PLACES OF AMUSEMENT.

There are no theaters in the city, but there are 4 concert-halls, the largest seating 400. As to concert and beer-gardens, there are stated to be "none worth recording".

DRAINAGE.

No information on this subject was furnished.

CEMETERIES.

Jacksonville has 4 burying-grounds; 2 lie contiguously upon the eastern outskirts of the city, and contain, respectively, 6 and 2 acres; a "new cemetery", of 38 acres, $2\frac{1}{2}$ miles from the city limits; and a recent one, of 6 acres, 1 mile north of the city.

Previous to 1872 the record of interments was very imperfect. For the past eight years the total number of interments has averaged about 15 per month. Before interments can take place the cause of death and the intended place of burial must be reported by the undertaker to the city sexton, who gives a permit. No dead body is allowed to be brought into the city unless accompanied by a certificate from the attending physician, or the health officer, or other competent person of the place whence the body is brought, that death was not caused by any infectious or contagious disease. The new cemetery, just started, belongs to a private corporation. It has a regular keeper, and roads leading to it from the city are now being constructed. The price of lots in the cemetery is from \$20 to \$50.

MARKETS.

Jacksonville's "City market" is private property, which is leased to the city. It covers about 100 feet square, and has 27 stalls—16 for meat, 8 for vegetables, and 3 for fish. Four outside markets are allowed 1 stall each for meat and 1 for vegetables. The rental of market-stalls averages, each, per month, for meat \$12 and for vegetables \$8. The market is open from daylight until noon. Nearly all of the retail supply of meats, poultry, fish, and vegetables is obtained at the market, though a few grocery-stores sell certain vegetables. Some also keep and sell poultry at wholesale, receiving it on consignment. In the city are 3 dealers who pack fish in ice for shipment into the interior. All the markets are under strict sanitary rules.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief health organization of Jacksonville is the board of health, composed of the city council, the mayor, and the city physician, who is also health officer. The only expense incurred is for the salaries of the health officer and 2 inspectors, about \$1,500 per year. The health officer is the chief executive officer of the board; he receives a salary of \$900 per annum. The board transacts its business at meetings called about once a month by the president. Between May 1 and November 1, 2 assistant inspectors are employed; one is a physician, and both have police powers to the extent of arresting and bringing offenders to trial before the police court. Inspections for the detection of nuisances are made every day, from house to house, as rapidly as the inspectors can get around. Attention is also paid to all special complaints by the health officer, who visits the alleged nuisance in person. This is also the case in the event of defective house-drainage, privy-vaults, cesspools, sources of drinking-water, sewerage, street-cleaning, etc.; and, when necessary, the health officer calls in the city sanitary engineer. The board requires the cremation of all garbage, so far as it can be done. Excrement is not allowed to be thrown into the canal, at one side of the city. The public sewers empty into the Saint John's river.

INFECTIOUS DISEASES.

Small-pox patients are isolated, either in a pest-house or in tents; but scarlet-fever patients are neither isolated nor quarantined at home. In case of the breaking out of contagious diseases in public or private schools the board has power to close the schools. Vaccination is not compulsory.

REPORTS, ETC.

The health officer keeps a record of deaths, and of the causes thereof, and reports the same weekly to the board, which reports weekly to the national board of health. It is contemplated to require, by ordinance, the registry

of births. A board of health has been appointed by the governor of the state; but it has never organized, and the old board continues to act.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its own force. The work is done wholly by hand, no sweeping-machines being used. The cleaning is done every day, and is done "as well as it can be done without sweeping". This work, including the removal of garbage and ashes, costs the city about \$1,500 annually. The street-dirt is taken outside of the city and burned. The present place of deposit will soon have to be abandoned, and another one found farther away.

Removal of garbage and ashes.—Garbage is removed by the city with its own force. By ordinance, the garbage is required to be placed in boxes, barrels, or other suitable receptacles, and then put out on the streets, at the curb-line, on the days designated for removal before the city scavenger comes around. Ashes and garbage may be kept in the same vessels. As far as possible the garbage is burned, and the ashes are used for fertilizer. It is reported that garbage is often kept on the premises too long for health.

Dead animals.—The carcass of any animal dying within the city must be removed by the owner, and buried a mile or two outside the limits. When the owner can not be found the city does the work. The annual cost of this service is included in the cost of street-cleaning. No record is kept of the number of dead animals annually removed.

Liquid household wastes.—Chamber-slops are run into sewers or into cesspools, or are thrown around orange-trees for fertilization. But a small proportion of the wastes find their way into the sewers; none at all are run into the street-gutters, while the larger part are absorbed by porous cesspools, having few, if any, overflows delivering—where they exist—into sewers. These cesspools, however, do not receive the wastes of water-closets. In a very few instances physicians have reported a suspected contamination of drinking-water from wells, by the escape of the contents of privy-vaults, as a cause of some typhoid diseases. Cesspools are cleaned out when it is ordered by the sanitary inspectors.

Human excreta.—About one-third of the houses in the city use privy-vaults, a few have water-closets, while the rest depend mostly on surface- or box-privies. In 1878 the further construction of privy-vaults was forbidden. Those in existence are cleaned out as often as ordered by the sanitary inspector. An ordinance requires that they be emptied at least twice a month, but in practice it is done from once a week to once a month, according to their use. About one-half of the privies use dry earth to a greater or less extent. The ultimate disposal of the night-soil is by converting it into fertilizer. It is not allowed to be used for manuring land within the gathering-ground of the public water-supply.

Manufacturing wastes.—The disposal of liquid and solid manufacturing wastes has never as yet engaged the attention of the authorities, and no regulations concerning the matter exist.

POLICE.

The police force of Jacksonville is appointed and governed by the mayor, with the consent of the city council. The city marshal is the head or chief executive officer of the force, and directly controls it, being responsible to the mayor. He is *ex officio* superintendent of police, serves warrants and legal notices, attends the mayor's court each morning, and opens the same and keeps order, and has charge of the city jail and all prisoners confined therein. The rest of the force consists of 1 captain at a salary of \$60 per month, and 9 patrolmen at \$45 per month each. The uniform is of navy-blue cloth, dress-coat, vest, and pantaloons, with cap and wreath. In summer a flannel sack-coat and pantaloons, with straw or felt hat, are worn. The men furnish their own uniforms, which cost \$40 each. Patrolmen are equipped with club, pistol, whistle, badge, and belt. Their hours of service are, for night men, 14 hours; day men, 10 hours. Each member of the force patrols three-quarters of a mile of streets. The number of arrests made in 1880 was 475, chiefly for drunkenness and disorderly conduct. During the same year property to the value of \$550 was reported to the police as lost or stolen, and of this \$365 was recovered and restored to the owners. For the same period there were 23 station-house lodgers, as against 39 during 1879. During 1880, 32 free meals were furnished to lodgers, at a cost of \$3 to the department. The police force is required to attend fires, to aid in their extinguishment, to protect property, and to preserve order. Special policemen may be appointed by the mayor for special service. Their standing, as compared with the regular force, is secondary. The yearly cost of the police force (1880) is \$5,580.

FIRE DEPARTMENT.

The following regarding the fire department of Jacksonville is from the annual report of the chief engineer for the year ending April 17, 1879:

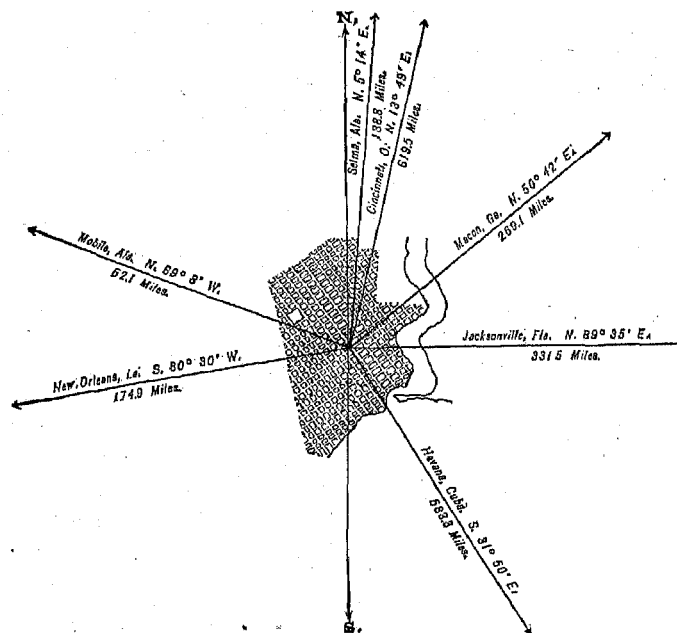
The force of the department consists of 2 hook-and-ladder companies, one of 25 men, and the other not yet complete in its organization; 2 engine companies, of 48 and 30 men, respectively; 1 engine company of 40 men; and 3 hose companies, of 21, 23, and 16 men, respectively. The apparatus in use consists of 2 steam fire-engines, 1 hand-engine, 3 hose-carriages, and 1 hook-and-ladder truck. The hose in the department amounts to 2,600 feet. During the year the department responded to 24 alarms, of which 3 were false. The total value of property destroyed by fire was \$110,500, \$61,743 of this being covered by insurance.

PENSACOLA, ESCAMBIA COUNTY, FLORIDA.

POPULATION

IN THE
AGGREGATE,
1850-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	2,164
1860.....	2,876
1870.....	3,347
1880.....	6,845



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	3,292
Female	3,553
Native	6,304
Foreign-born	541
White	3,554
Colored	3,291

Latitude: 30° 25' North ; Longitude: 87° 13' (west from Greenwich); Altitude: 1 to 60 feet.

HISTORICAL SKETCH.(a)

The bay now known as Pensacola was first discovered by Pamphile de Narvaes while on an expedition to Florida in 1526, and in 1639 was visited by Diego de Maldonado, a captain of Hernando de Soto, during a search for harborage. From him it received the name of "Port d'Achusi", a corruption of the Indian name *Ochuse*. De Soto, on the return of Maldonado, sent him to Havana for ships and supplies with which to meet him at Achusi in October of that year—De Soto intending to make Achusi his base of operations. Maldonado returned in October, and afterward visited the bay again and again; but De Soto was then forcing his way through the wilderness toward the Mississippi. Don Tristan de Luna, in 1558, and Don Andre de Pes, in 1693, successively visited Achusi, and by them it was named, first "Santa Maria", then "Santa Maria de Galvez", both of which gave way to "Pensacola". This name is by many supposed to be that of an Indian tribe then inhabiting the shores of the bay; but in a lecture on the subject, Judge R. S. Campbell says: "There is something so Spanish in its sound that I am inclined to the belief that it was derived from *Peniscola*, a village of Spain on the Mediterranean."

In 1696 Don Andre d'Aricola built a fort and town near what is now Fort Barrancas, on an island formed by two small streams. This he called "Fort Saint Charles", the first Pensacola, and it was probably a penal colony of convicts from Mexico. This settlement was destroyed in 1719, during the first expedition of the French under Bienville. It was at this time that the second Pensacola was founded on Santa Rosa island, somewhat to the east of the present site of fort Pickens. This town was built on the beach, of small one-story houses, save the governor's palace, which was, to judge from a drawing made in 1743, a large and imposing edifice. It also boasted a church, octagonal in shape, and was defended by a small stockaded fort.

This last-mentioned town was destroyed by a storm in or about the year 1754, and the inhabitants moved to the present site of Pensacola. This was ceded to Great Britain in 1763; was then made the seat of government for West Florida, and vigorous steps were taken for its colonization. George Johnston was the first military governor. He was succeeded by Governor Brown; he by Elliot; and in 1772 Peter Chester was appointed. During the years of English rule the town was laid out in regular order, one of the pleasantest features of the plan adopted being the reservation of an immense plot of land reaching along the bay-front for a park. At the time of the Spanish succession in 1783 this was, however, curtailed until nothing remained save two small squares—Seville and Ferdinand VII. Among the legacies in names left the city by the Spanish are Palafox, Saragossa, and Romanna streets. In 1772 the export trade of Pensacola consisted largely in cattle, pelts, and naval stores. The Indian trade was also extensive.

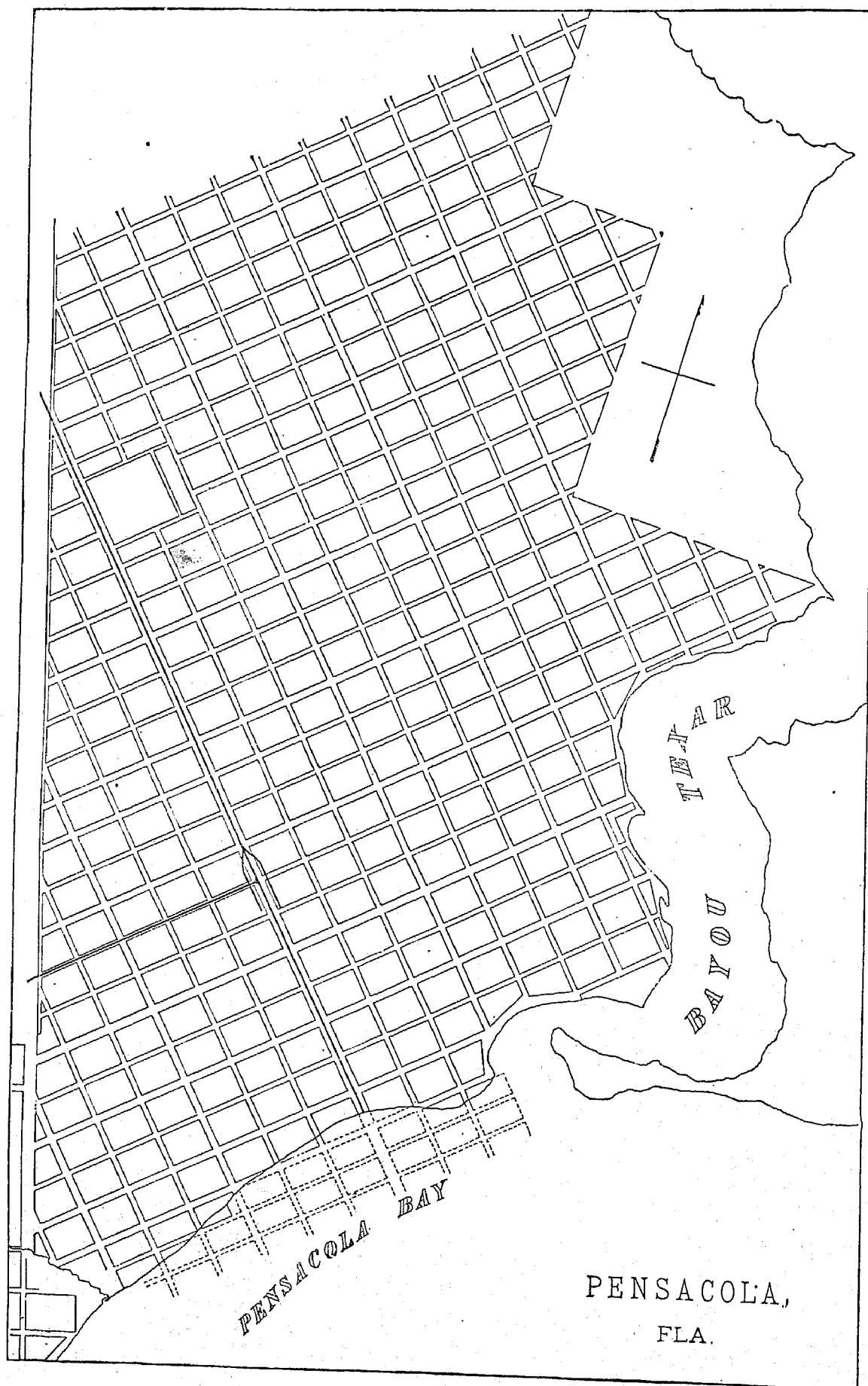
In 1777 Pensacola contained several hundred houses, mostly built of wood, and "the governor's palace was a large pretentious building crowned with a tower". Under English rule this prosperity continued for nearly 20 years, until, war being declared in 1779 between England and Spain, Pensacola was invested by José de Galvez, and on the 9th of May, General Campbell surrendered the post, including the entire province of West Florida. A provision of capitulation required all English subjects to leave the province within eighteen months, they being permitted to dispose of their property in the mean time. This resulted in a general exodus of all life and enterprise, and Pensacola degenerated into a mere garrison town. From 1793 to 1814 nothing of interest seems to have transpired.

In 1814, after the Creeks were defeated by General Jackson, they sought refuge at Pensacola, confident of aid from the Spaniards, and soon after the British fleet, repulsed from fort Bowyer at Mobile, received the protection of the flag of Spain at Pensacola. Jackson, seeing that the point was then to be made a "harbor of refuge" for the enemies of his government, and remonstrances with Governor Manriquez proving futile, determined to seize the place. On November 6 he appeared before the town and demanded its surrender, sending a flag of truce to fort Saint Michael, which was situated on a hill at the head of Palafox street and commanded the city. The flag of truce being fired upon, and after further ineffective efforts to avoid bloodshed, he determined to take possession by force, attacking from the east and so escaping the fire of the fort. Here he was opposed by a battery erected on the beach near Barclay's point. Captain Laval assaulted this battery at the head of 120 men, and took it with small loss, he himself, however, being among the wounded. The army, 3,000 strong, then entered the town, fort Saint Michael surrendered, fort Barrancas was blown up, and the British fleet sailed out of the harbor. In May, 1818, Jackson again captured Pensacola, the Spaniards having again violated their neutrality, and the governor and garrison were transported to Havana at the expense of the United States. Jackson now decided to hold possession until Spain should be able or willing to preserve her neutrality, and to this end he appointed Colonel King military and civil governor, and Captain Gadsden first collector of the port. In 1819, however, on the arrival of 600 Spaniards from Havana, Spain, by permission, again assumed control, and held it until July 18, 1821, when all Florida was formally ceded to the United States, the ceremony of transfer to General Jackson, as governor of Florida, taking place in the square of Ferdinand VII.

Early in the civil war this port was looked upon with longing eyes by the confederates on account of its immense land-locked harbor, its ship-building facilities, its resources in timber and naval stores, its navy-yard, then fully stocked with munitions of war, and its fortifications—forts Pickens, Barrancas, and McRae—which rendered it a point almost impregnable, and hence of the greatest maritime importance. This would be their depot of supplies, and their base of operations in and the key to the control of the gulf. The city proper soon fell into their hands, or rather was already, and also, within a short time, the navy-yard and forts Barrancas and McRae. Fort Pickens, however, being supplied, resisted all attempts to capture it, and the bombardment of the navy-yard and forts rendering them untenable, they were consequently abandoned by the confederates.

After the close of the war new capital and energy began gradually to flow in; business increased, though strangers were, to a great extent, deterred from coming here on account of yellow fever. From this plague the city has been protected since the summer of 1874 by a most stringent quarantine, and by pursuing the same policy in the future the chances of the disease getting a foothold will be reduced to a minimum.

Pensacola has often been visited by destructive fires, but on the morning of December 11, 1880, a fire broke out before which all others fade into insignificance. The fire started from an incendiary origin on Palafox street, between Intendencia and Romanna streets, at about 12.30 a. m. A brisk breeze was blowing from the northeast, and, the buildings being of a most inflammable nature, while the only steam fire-engine was disabled and laid up for repairs, the flames spread rapidly until almost the entire business quarter had been consumed, and the fire was



checked only for want of material. The inhabitants at once went to work to repair the disaster, and now, within the fire limits, brick buildings are taking the place of those destroyed. The demand for skilled labor far exceeds the supply, and the great fire of 1880 promises to be the beginning of a new era of prosperity for Pensacola.

Though one of the smallest of the cities treated in this report, Pensacola is a rising place. Three newspapers—one tri-weekly, one bi-weekly, and one weekly—are published here. The waters abound in fish, and the forests in game. The trade is quite large in the business season; 200 square-rigged vessels have been seen loading here at one time. There are 10 wharves, aggregating in length over 7 miles and representing an investment of over \$275,000. The exports consist chiefly of timber and lumber of all kinds, hides, tallow, wool, cotton, turpentine, and rosin. The fishing interests, both in packing-houses and ice-vessels, are large and flourishing. In the year ending July 1, 1877, 270 foreign, 110 American, and 210 coasting vessels entered the port, while the value of exports for the same period was \$2,291,822.

PENSACOLA IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Pensacola:

LOCATION.

Pensacola lies in latitude 30° 25' north, longitude 87° 13' west from Greenwich, on Pensacola bay, 10 miles from the gulf of Mexico. The altitude above sea-level, within a radius of 5 miles, varies from 1 foot to 60 feet, the principal part of the city being from 40 to 50 feet above sea-level. Pensacola enjoys a good, deep, and ample harbor, free from strong tidal currents, and, if the whole bay be considered, is almost land-locked. The draught of water over the bar at the mouth of the bay is 21 feet; inside, the draught of water in the channel ranges from 12 to 30 feet. A number of rivers empty into the bay. The advantages of this harbor were early seen by the Spanish adventurers, who explored and settled at various points on the Florida coast.

RAILROAD COMMUNICATIONS.

Pensacola is touched by two railroads—the Pensacola railroad, terminating at Whiting Junction and connecting there with the Mobile and Montgomery railroad, and the Pensacola and Perdido River railroad, running westerly and terminating, with no connections, at Millview, Florida.

TRIBUTARY COUNTRY.

The country immediately surrounding the city has no agricultural importance, and no industries outside of lumbering, etc., and brick-making; consequently the local trade is very small, the little hamlets in the vicinity purchasing their supplies direct from New Orleans, Mobile, or Montgomery.

TOPOGRAPHY.

The modern city occupies a sandy though fertile plain, gently sloping from the hills—on one of which stood fort Saint Michael—to the bay on the south. On the east and west it is bounded by two fine bayous—Chico and Tarhor. This plain is probably what was called on the old maps “Oyster cove”, from which the water has since receded. The soil of the site (and for 40 miles surrounding) is sandy, with very little underlying clay. The surface is rolling, and naturally well drained, abounds in fine springs, and is free from marshes or ponds of consequence. The country around is heavily wooded, and there are within a radius of 10 miles no elevations of more than 160 feet.

CLIMATE.

The highest summer temperature in average years is 93°; lowest winter temperature in average years, 28°. Except in diminishing the extremes of temperature, the adjacent waters exert no marked climatic influence. In summer southerly winds temper the heat, while northerly winds cause a disagreeable dryness. Easterly winds are moist and unpleasant at any season, but there are very few of them.

STREETS.

The total length of streets in Pensacola is 7 miles, all of which are unpaved. Sidewalks are generally paved with brick or wood. The gutters are not paved at all; the soil is so porous that water seldom stands in the streets, and mud is unknown. Shade-trees are planted in the streets 1 foot from the sidewalk. Street-repairing, etc., under direction of the street commissioner, chosen by the aldermen, is done by prisoners who are unable to pay their fines. The streets are lighted by oil-lamps. The city is without horse-railroads or omnibus lines, water- or gas-works. The water-supply is obtained entirely by means of “driven wells”, which are simply iron pipes, 1 or 2 inches in diameter, driven into the ground to the depth of 50 or 60 feet, with suction-pumps at the top. The water thus obtained is cool and agreeable.

PUBLIC BUILDINGS.

The city owns and occupies for municipal purposes, wholly or in part, the city hall, jail, and market-house, all together valued at about \$10,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Pensacola has two small parks or squares, bearing the names of *Seville* and *Ferdinand VII*, lying on the waterfront. Public property of this kind is under the control of the street commissioner.

PLACES OF AMUSEMENT.

There is one theater in the city, now in process of construction, which will cost \$50,000, and is intended to seat 800. Germania hall, seating 300; Pitt's hall, seating 400; Reache's hall, seating 300; and the hall and reading-room of the Young Men's Christian Association, seating 200, are used for concerts, lectures, etc. There is one beer-garden—Kupfrian's—and two concert-halls—Bay View varieties, built in 1875 at a cost of about \$4,000, seating 200, and the Royal Palace varieties, built in 1876, at a cost of \$2,000, seating 100.

DRAINAGE.

Pensacola is without sewers. The sewage of the city is carried off by open gutters, and is discharged either into two small streams or directly into the bay. Each spring it is found necessary to open the gutters and remove sediment and vegetable matter. The work is done by hand by prisoners from the police court, under the supervision of the police. After the accumulations are removed the gutters are disinfected with lime. Mr. Tarble says, "The city is greatly in need of some complete plan of sewerage. The grade is very moderate, and, as it is, the gutters being unbricked or otherwise protected, much of the drainage seeps into the soil or remains a black, foul-smelling sediment, which must be removed annually. Were it not for such cleansing and the sandy nature of the soil, the present system would be productive of sickness, but at present the health of the city does not seem to be affected, though, in time, more perfect sewerage will be absolutely necessary."

CEMETERIES.

Pensacola has three cemeteries, as follows:

Saint John's Cemetery and the *Colored Cemetery* lie outside the city, about 1 mile to the northwest; the former contains $4\frac{1}{2}$ and the latter 6 acres.

Saint Michael's Cemetery is situated inside the city, between Chase and Romanna streets.

The record of interments for the different cemeteries was destroyed during the recent fire, and the number of the same can not be given. The matter of issuing burial permits is under the joint control of the board of health and the city, and it is entirely regulated by circumstances. Saint John's cemetery is under the control of the Masonic order, and is laid out in straight roads and walks. A revenue is derived from the lease and sale of lots. Lots owned by private parties are cared for by the owners; but the public portion of the cemetery is kept in order by the Masons. Saint Michael's cemetery belongs to the Catholic church. The lots are owned and cared for by private individuals, subject to corporate and church control, with the exception of public lots for the poor, and a space reserved and dedicated for the use of the convent. Roads and walks are unimproved, and, save in connection with the convent lot, no attempts have been made at landscape-gardening. Mr. Tarble adds: "Much that in most cities is subject to the control of special ordinances is here left to the discretion of the mayor, marshal, sanitary inspector, or board of health, especially all relating to burial permits, limit of time after death, and depth of grave, all being determined according to the particular circumstances. Yet, despite this seeming negligence, such things are sufficiently well regulated to avoid danger therefrom."

MARKETS.

There is one public market and a market-house in the city, but no information regarding them was furnished.

SANITARY AUTHORITY—BOARD OF HEALTH.

The board of health of Pensacola, in whose hands the care of the city's health is placed, is not an independent body, but the board of aldermen, with the mayor and city physician, act as such. The annual expense of the board in ordinary times is about \$5,000, expended in maintaining a maritime quarantine. There is no law restricting the expense of the board during an epidemic, and its powers are large in respect to all measures and regulations of a general nature, as well as to enforcing quarantine. It may examine into and endeavor to check all cases of malignant disease. Any member may examine premises on suspicion of nuisances. The president of the board is the chief executive officer; he has power to convene the board; he executes all laws made by it, and he serves without pay. The board transacts its business at regular meetings held twice a month between May and November, and at special meetings held on call of the president. Two assistant sanitary inspectors are employed, both being physicians, and both having police powers for the arrest of such persons as refuse to remove nuisances after notification. Inspections are not made regularly, but only as nuisances are reported.

INFECTIOUS DISEASES.

Small-pox patients are either quarantined at home or removed to the pest-house, situated about 3 miles from the city. Scarlet-fever patients are isolated at home, a red flag is placed on the house, and none but the physician is allowed to enter or leave. Vaccination is not compulsory.

There is no system for the registration of births, diseases, and deaths.

The board of health makes no report.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its own force. The work is done wholly by hand. The streets are cleaned daily in summer, but not so often in winter. It is reported as not very efficiently done. The annual cost is \$1,800. The sweepings are deposited on low lands in the suburbs.

Removal of garbage and ashes.—Garbage is removed both by the city, with its own force, and by householders. Ashes and garbage may be kept in the same vessel, and both are disposed of in the same manner as street-sweepings. No nuisance is reported from the improper handling or disposal of garbage.

Dead animals.—The carcass of any animal dying within the city must be removed beyond the limits, and either buried or burned.

Liquid household wastes.—These are all run into the open street-gutters.

POLICE.

The police force is appointed and governed by the mayor, who is at its head. The city marshal is the chief executive officer; he must see that the force does its duty, cause complaint to be made and procure evidence against offenders, attend at the mayor's court and office, and attend at the city prison on the direction of the mayor. He keeps full record of the affairs and operations of the force; his salary is \$1,500 per annum. The rest of the force consists of 11 police officers at an annual salary of \$1,200 each. The uniform is of blue flannel with brass buttons having the letters C. P. on them, and slouched hat. The men provide their own uniforms. Patrolmen are equipped with belt, club, and revolver. The hours of service are, day force from 7 a. m. to 8 p. m., and night force from 8 p. m. to 7 a. m. The force patrols about 4 miles of streets.

During the past year 1,542 arrests were made, principally for drunkenness, fighting, and using obscene language. During the year but very little property was reported to the police as lost or stolen, all of which, however, was recovered and returned to the owners. During the same time there were 40 station-house lodgers, as against 30 in 1879. The force, when directed, is required to co-operate with the fire and health departments. On extraordinary occasions the mayor appoints special policemen, who for the time have the same standing as the regular force. The yearly cost of the police force (1880) is \$15,000.

FIRE DEPARTMENT.

The fire department is under the control of a fire association, and consists of 5 volunteer companies, with a total membership of 189. The full equipment will consist of 2 steam fire-engines, 2 hose-carts, and a hook-and-ladder truck, and will be well organized and rendered thoroughly efficient.

SCHOOLS.

The public schools of Pensacola compare favorably with any in the South in efficiency and organization. There are 2 schools, 1 for white and 1 for colored children. The former is graded from primary to high, and is well patronized by all classes; the latter is well managed and has a large attendance.

The Catholic convent has 4 private schools, 1 each for white and colored boys and white and colored girls. There is an Episcopal school under charge of the rector of the Episcopal church, also several other private schools for the younger children.

CHURCHES.

The following denominations are represented in Pensacola: Roman Catholic, Baptist, Episcopal, Methodist, Presbyterian, and Scandinavian.

COMMERCE AND NAVIGATION.

[From the reports of the Bureau of Statistics for the fiscal years ending June 30.]

Customs district of Pensacola, Florida.	1879.	1878.
Total value of imports	\$21, 580	\$15, 149
Total value of exports:		
Domestic.....	\$2, 102, 423	\$1, 930, 258
Foreign.....	None.	None.
Total number of immigrants	None.	None.

SOCIAL STATISTICS OF CITIES.

COMMERCE AND NAVIGATION—continued.

Customs district of Pensacola, Florida.	1879.		1880.	
	Number.	Tons.	Number.	Tons.
Vessels in foreign trade:				
Entered.....	313	135,344	398	256,327
Cleared.....	286	176,981	378	253,291
Vessels in coast trade and fisheries:				
Entered.....	168	42,062	200	65,225
Cleared.....	173	42,945	219	69,457
Vessels registered, enrolled, and licensed in district..	103	7,063	114	12,289
Vessels built during the year.....	7	117	2	60

ALABAMA.

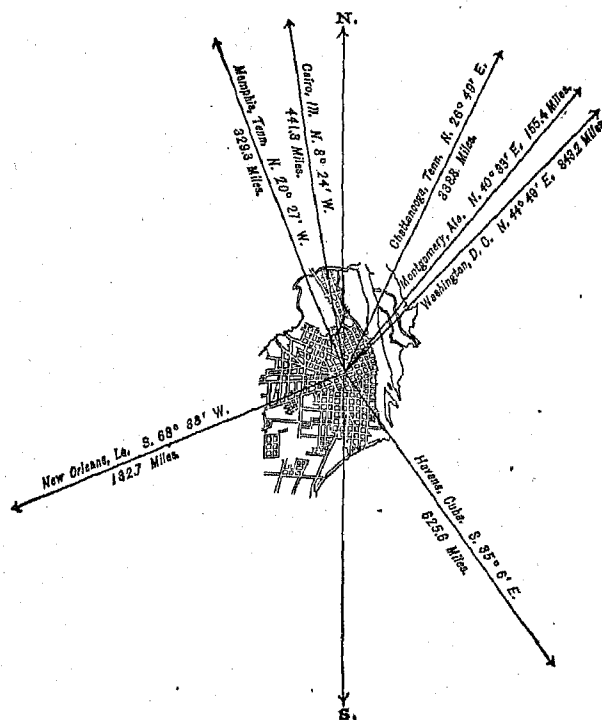
MOBILE.

MOBILE COUNTY, ALABAMA.

POPULATION

IN THE
AGGREGATE,
1820-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	1,500
1830.....	3,194
1840.....	12,672
1850.....	20,515
1860.....	29,258
1870.....	32,034
1880.....	29,132



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	13,189
Female.....	15,943
Native	26,195
Foreign-born	2,937
White.....	16,885
Colored	* 12,247
* Including 4 Chinese and 3 Indians.	

Latitude: 30° 41' North; Longitude: 88° 2' (west from Greenwich); Altitude: 15 feet.

FINANCIAL CONDITION:

Total Valuation: \$12,991,795; per capita: \$446 00. Net Indebtedness: \$2,609,250; per capita: \$89 57. Tax per \$100: \$2 60.

HISTORICAL SKETCH.

Iberville's settlement (1699), at the eastern extremity of the bay of Biloxi, the nucleus of the French colonization of Louisiana, comprised a small band of adventurers who led a miserable existence during the earlier years of their life in the "land of promise".

The land was low and unhealthful. The settlers, accustomed to the climate of France and of Canada, had suffered during their first winter from excessive cold, against which there was no adequate protection, and the intense heat of summer allowed them to work for only a few hours of the morning. They had neither the strength nor the energy to cultivate their land, but trusted to the arrival of aid from France, many dying of famine and

sickness. When relief came (1701) it was accompanied by an order to remove the seat of government to Mobile bay, and a fort, warehouse, and other buildings were erected at the mouth of Dog river. Nine years later this settlement was abandoned, and a new establishment was made at the present site of the city of Mobile.

An official dispatch of April 30, 1704, gives the following account of the colony: "180 capable of bearing arms; 2 French families, with 3 little girls and 7 little boys; 6 young Indian boys (slaves); and officers, whose number is not stated. A little land about the fort had been cultivated, and 80 wooden houses had been erected. For live stock they had 9 oxen, 14 cows, 4 bulls, 6 calves, 100 swine, 3 kids, and 400 hens." In time of famine the colonists were compelled to resort to the sea-coast and live by fishing. On one occasion they were assisted by the Spanish governor of Pensacola, to whom they had previously sent supplies in time of need. In this year a French man-of-war, bringing provisions, brought also 20 girls, to be cared for by Bienville and to be married to such of the soldiers as should be able to support wives. In the following year another ship brought more supplies, soldiers, priests, 4 sisters of charity, 4 families of laborers, and 23 girls, "whom Bienville had orders to marry to Canadians and others able to support them". This year was marked by the outbreak of a fatal epidemic.

During the next four years little progress was made. Bienville, in his dispatches to France, constantly urged the sending of more supplies, as the land under cultivation was not sufficient for the support of the colony. The women positively refused to eat corn-bread, and announced their intention of leaving a place to which they had been decoyed with false promises of luxury and comfort. This was known as the "petticoat insurrection". Fifty men had joined the colony from the upper Mississippi; but, with the scarcity of provisions, this was a drawback rather than an aid, and the colonists wasted in quarrels among themselves the energy that should have been devoted to the cultivation of the land and in resistance to the Indian tribes by which they were surrounded. The life of the governor was harassed by charges of maladministration and incompetence, which made his duty still more difficult. He complained to the French minister that though the land of the Mobile river was fertile, it was too unhealthful during the season of cultivation for white men to work there, and that the efforts of the planters were hindered by want of negroes, horses, and oxen. He found that the Indians were treacherous, and often attacked the French, whom they had learned to despise; that most of the men were too young to be useful as soldiers, and that the Canadians, whom he had retained contrary to orders, were the only persons upon whom he could rely. In 1708 the colony had a total population of 279, including 80 slaves. The live stock comprised 100 horned cattle, 1,400 swine, and 2,000 fowls.

Finding it impossible to persuade the whites to cultivate the fields, and that the Indians, when compelled to do so, would escape to the woods, Bienville requested permission to send Indians to the West Indies, there to exchange them for negro slaves. This the government refused. Eager to increase the population and wealth of the colony, Bienville adopted the short-sighted policy of prohibiting emigration, reducing the whole people practically to a condition of servitude. In 1709 the population was compelled to subsist almost entirely on acorns. A year later the people had to be scattered among the Indians as a dependence for food. In 1711, when the site was removed to the present location of Mobile and a fort was built, only a small garrison was left at the old station on Dog river. The cultivation of tobacco was begun in this year, and at its close further supplies were received from France. The expenses of the colony during this year amounted to 61,504 livres. France itself was at this time suffering from the depletion of the many wars of Louis XIV, and the government hesitated to add to its burden the support of a distant and most unpromising colony. Consequently (September 14, 1712) the king granted to Anthony Crozat the exclusive privilege of trading in Louisiana for fifteen years. He was allowed to send one ship a year to Africa for negroes, and was to possess and work all mines of precious metals which might be discovered, reserving one-fourth of the proceeds for the king. All the lands he cultivated, the buildings he erected, and the manufactories he established were to be his forever. In return he was to send to the colony annually two ship-loads of settlers, and after nine years was to assume all its expenses, including those of the garrison. For the latter he held the nominations of officers. The king undertook to supply for nine years the annual sum of \$10,000 toward the expenses of the colony, which was to be governed according to the laws, ordinances, customs, and usages of the prevostship and viscounty of Paris. There was also to be a government entirely similar to the one in San Domingo. At this time the population numbered less than 500, only about 20 of whom were negroes.

In 1713 Cardillac was governor, and Bienville was reduced to the grade of lieutenant-governor. Cardillac thus describes the colony:

The wealth of Dauphin island consists of a score of fig trees, 3 wild pear trees, and 3 apple trees of the same nature, a dwarfish plum tree with 7 bad-looking plums, 30 plants of vines with 9 bunches of half-rotten and half-dried up grapes, 40 stands of French melons, and some pumpkins. This is the terrestrial paradise of which we have heard so much; nothing but fables and lies.

After a more extended exploration, he writes:

This is a very wretched country; good for nothing, and incapable of producing either cattle, wheat, or vegetables, even as high up as Natchez.

June 1, 1714, he says:

The inhabitants are no better than the country. They are the very scum and refuse of Canada; ruffians who have thus far cheated the gibbet of its due; vagabonds who are without subordination to the laws, and without any respect to religion or for the government. The troops are without discipline, and are scattered amongst the Indians, at whose expense they live. * * * The colony is not worth a straw for the moment, but I shall endeavor to make something of it, if God permits me health.

By the end of this year Cardillac had quarrelled with all his subordinates, and the colony was divided between the party of the governor and the the party of the lieutenant-governor.

Cardillac's object in his enterprise was to acquire a large fortune by the discovery and working of mines, and he cared nothing for the slower processes of agriculture. He advised the government to give the colonists as much land as they chose to take, its quality being so bad that there was no occasion to care for the number of acres; so that to give large grants of land would be cheap liberality. He thought it useless to try to encourage commerce, as it was ridiculous to suppose that boats would ever navigate the rivers for purposes of trade, they being "as rapid as the Rhone, and in their crooked course imitated the undulations of a snake". After exasperating the Indian tribes which had formerly been faithful to the French, and causing such ill-feeling in the colony that he feared the result, he retired to Dauphin island. In 1711 he was recalled in disgrace, and Epinay was sent out as governor, with considerable reinforcements. He in his turn immediately quarrelled with Bienville, and the colony was again distracted with disputes.

The change of governor producing no improvement, Crozat, finding his hopes unfounded and his fortunes melting away, requested the king to permit him to resign the charter which had been granted him. On the 13th of August, therefore, the management of Louisiana was formally resumed by the French government; but in less than a month the colony was handed over to the Western Company, or Company of the Indies, under the direction of the notorious John Law. To this company was granted for 25 years the exclusive privilege of carrying on all commerce of Louisiana, and of buying beaver-skins from Canada, the price of the same being regulated by the king. The company was further to be allowed to raise troops, build forts and vessels of war, declare war or make peace with the Indians, and to exercise all of the privileges formerly pertaining to the king, who reserved to himself only the power of appointing the members of the supreme council. The company was bound to build churches and pay the clergy, and to transport to the colony 6,000 whites and 3,000 negroes. The first directors were appointed by the king, with John Law at their head. After this they were to be elected by the votes of the stockholders.

In the prospectus of the company the colony of Louisiana was represented as being the most favored spot on the globe; its climate so healthful that Indians appeared young at the age of 500 or 600 years. They were declared to be so attached to the white race that they voluntarily performed all the arduous duties that were necessary. The fruits of the earth were abundant, and the ground was so fertile that agriculture ceased to be a labor, while the mines of gold and silver were inexhaustible. The shares of the company rose from 500 to 1,000, to 5,000, and to 10,000 livres. Many who owned landed property sold it and invested its value in these shares. Fortunes were rapidly made and lost, and the most unfavorable portions of the territory were actually sold for 30,000 livres a square league.

Additional troops were sent out, and, to the great satisfaction of the inhabitants, Bienville, who had labored among them for 20 years, was appointed governor. His first act was to choose a more suitable place for the seat of government, a decision which led to the settlement of New Orleans. At about this time the importation of African slaves assumed considerable proportions. After the breaking out of the French and Spanish war, 1719, and after the taking and retaking of Pensacola, 2 Spanish brigantines entered the bay of Mobile, and landed 35 men with the intention of burning and plundering one of the establishments on the coast. They were surprised and defeated by a party of Canadians and Indians, and only 6 escaped. Two days later the whole Spanish fleet appeared before Dauphin island, but were unable to effect a landing. Fresh immigrants arrived in Louisiana, but the climate was too unhealthful for European labor, and over 1,000 slaves were imported from Africa, supplies came more rapidly from France, and the colony appeared at last to prosper, though its expenses were still very great. The failure of the Royal Bank of France, and the consequent fall of Law in 1722, caused great distress in the colony. Provisions became so scarce that the garrisons of Mobile and Biloxi were again distributed among the Indians for support, the colonists spreading themselves along the sea-coast to subsist on fish and oysters. In September they were relieved by the arrival of a ship bringing food and ammunition. The people were informed that the management of the colony had been placed by the king in the hands of 3 commissioners, who had given to Bienville the long-desired permission to remove the government to New Orleans. In October of this year the distress was increased by a hurricane which caused great damage. On the 11th of September, 1740, a still more terrible hurricane swept over Mobile, destroying, among other things, the storehouse containing provisions for the garrison; and on the 18th there occurred another, which completed the ruin; so that Mobile had to be dependent on New Orleans for supplies. In 1744 the colony was again at the point of starvation and dependent on the mother country. The population of Mobile, 1745, was reduced to 150 white males, and 200 negroes of both sexes. In 1751 the garrison alone amounted to 475 French and Swiss soldiers.

In 1762, by a secret treaty, the French government, tired of the expenses and annoyances of its Louisiana possessions, ceded so much of them as lay west of the Mississippi river and Orleans island to the king of Spain, who was reluctant and hesitating in his acceptance of the cession. At the same time all that part of the province lying east of the Mississippi river, excepting Orleans island, was ceded to the British, Mobile thereby coming under the British flag. In 1765 British troops arriving from Jamaica brought with them a contagious disease which long left its effect on the settlement.

In 1762 the commerce of Mobile had become considerable; the exports including indigo, Indian corn, raw hides, tallow, pitch, bear's oil, tobacco, tar, myrtle wax, salted wild beef, pecan nuts, sassafras, dried salt fish,

oranges, poultry, squared timber, cedar posts and planks, cypress and pine boards, canes, and hoghead shooks. Cotton was at this time cultivated to some extent, but there is no notice of its exportation. In the same year Mobile was again devastated by a storm of such violence that vessels were actually driven into the town, and all vegetation was destroyed by the salt spray.

In 1780, during the war between England and Spain, Galvez, the governor of Louisiana, took possession of the settlement. In the following year he captured Pensacola, with its garrison of 800 men, and the whole of west Florida surrendered to him. In 1783, at the treaty between England and Spain, it was mutually agreed that Mobile should be transferred to the United States, whose independence had been a few months before acknowledged by Great Britain; but the place was not then actually surrendered. In 1813, the United States, being at war with England, determined to seize the port of Mobile, which surrendered, at the demand of General Wilkinson, with a force of 600 men from New Orleans. The following year the British, with a land force of 130 marines and 600 Indians, under Captain Woodbine, assisted by a naval force under Commodore Percy, attacked fort Bowyer, but were repulsed. In June, 1815, the British again surrounded the fort with a large naval force, and landed 5,000 men, Major Lawrence, its commander, surrendering at discretion. A treaty of peace had been made between England and the United States in the previous December, but news of it did not reach Mobile till the middle of March. The British forces withdrew on the 1st of April.

On March 1, 1817, Congress divided the Mississippi territory, which had formerly embraced the whole of the states of Mississippi and Alabama, by the present line dividing these two states, erecting the eastern into another territory and giving it the name of Alabama. In the latter part of the following year the territory received large accessions to its population by immigration from Virginia, the Carolinas, Tennessee, Kentucky, and Georgia, and the country was rapidly settled. In this year Mobile was visited by an intended colony of French refugees, among whom were many men of high social, political, and military station under the Napoleonic *régime*, who were forced to leave France for their adherence to the deposed emperor. After many hardships, and much litigation about their granted lands, they finally settled near the White Bluff, and took their share in the subsequent history of the section. In the fall of this year, 1818, the Bank of Mobile was established, with a capital of \$500,000. In 1819 the territory of Alabama had so increased in population that Congress authorized the formation of a state constitution; and, on December 14, 1819, by a joint resolution of Congress, the state of Alabama was admitted into the Union, William W. Bibb being the first governor of the new state, as he had been of the territory.

During the civil war a great amount of trade was carried on, by means of blockade-runners, till August 5, 1864, when Admiral Farragut sailed into the bay, reduced the forts, destroyed the confederate fleet, including the ram "Tennessee", and effectually closed the harbor against blockade-runners, though he failed to capture the city.

MOBILE IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Mobile:

LOCATION.

Mobile lies in latitude 30° 41' north, longitude 88° 2' west from Greenwich, on the west side of the Mobile river, immediately above its entrance into Mobile bay, and 30 miles from the Gulf of Mexico. The entrance to the harbor is guarded by fort Morgan (formerly fort Bowyer), on Mobile point, and by fort Gaines, on the eastern extremity of Dauphin island, 30 miles below the city. There is also a light-house on Mobile point, the lantern of which is 55 feet above sea-level. In and about the harbor are the remains of several batteries erected during the late war, and on the east side of Tensas river are the ruins of Spanish fort and fort Blakely. Large numbers of sailing-vessels trade between Mobile and New Orleans, the ports on the gulf of Mexico, and the Atlantic coast, while a regular line to Liverpool has been established, and several trips have already been made; but, owing to the shallowness of the harbor, all ships drawing more than 8 or 10 feet of water are obliged to anchor in the bay, 25 miles or more from the city. An appropriation for the deepening of the harbor has been made by the national government, and work will soon begin. Steamboats ply regularly on the rivers that empty into the bay, going for many months in the year as far as Wetumpka, Alabama, on the Coosa; to Aberdeen, Mississippi, on the Little Tombigbee; and to Tuscaloosa, Alabama, on the Black Warrior.

RAILROAD COMMUNICATIONS.

Mobile is touched by the following railroads:

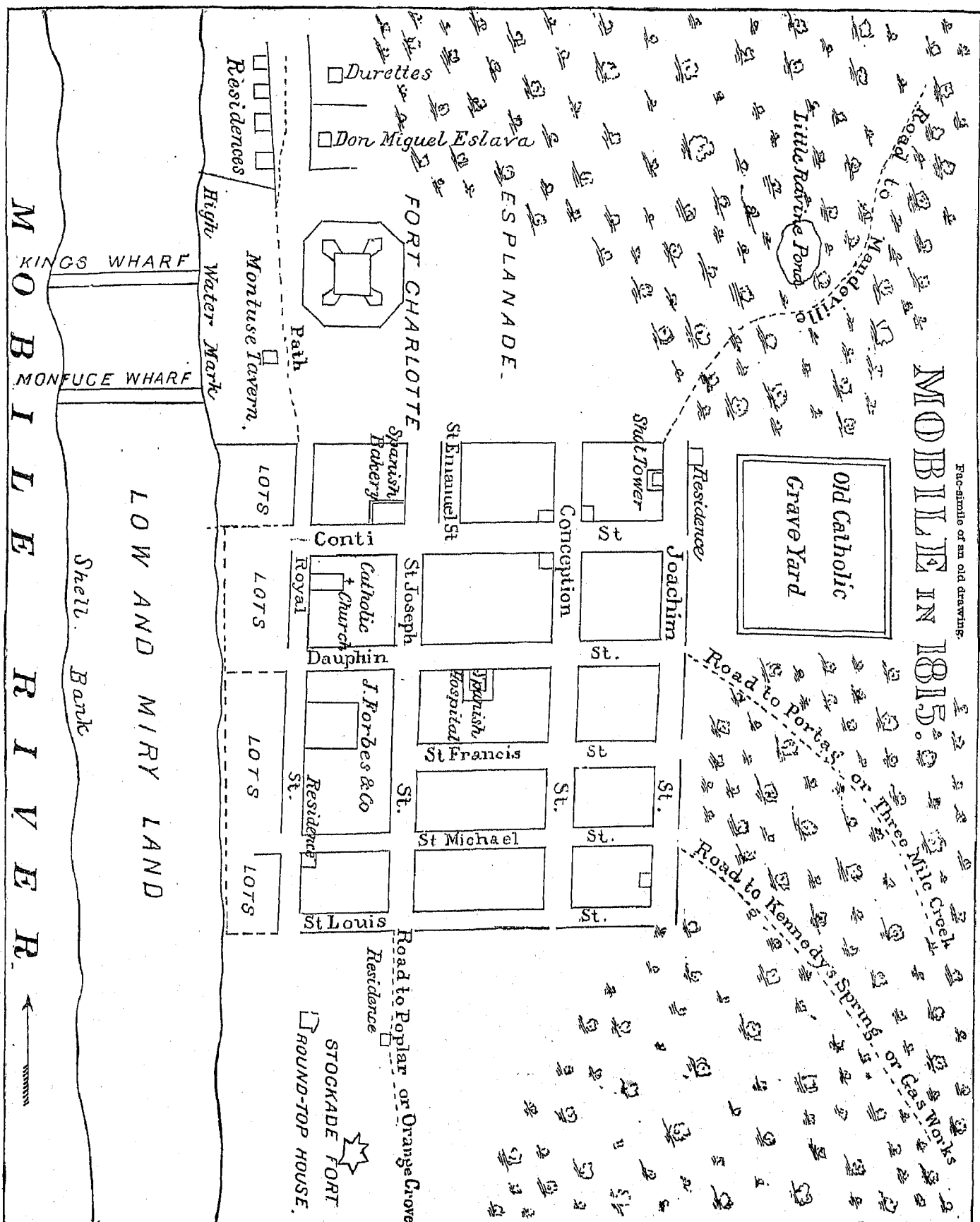
The Mobile and Ohio railroad, to Columbus, Kentucky, and, by connections, with Cincinnati, Saint Louis, and Chicago.

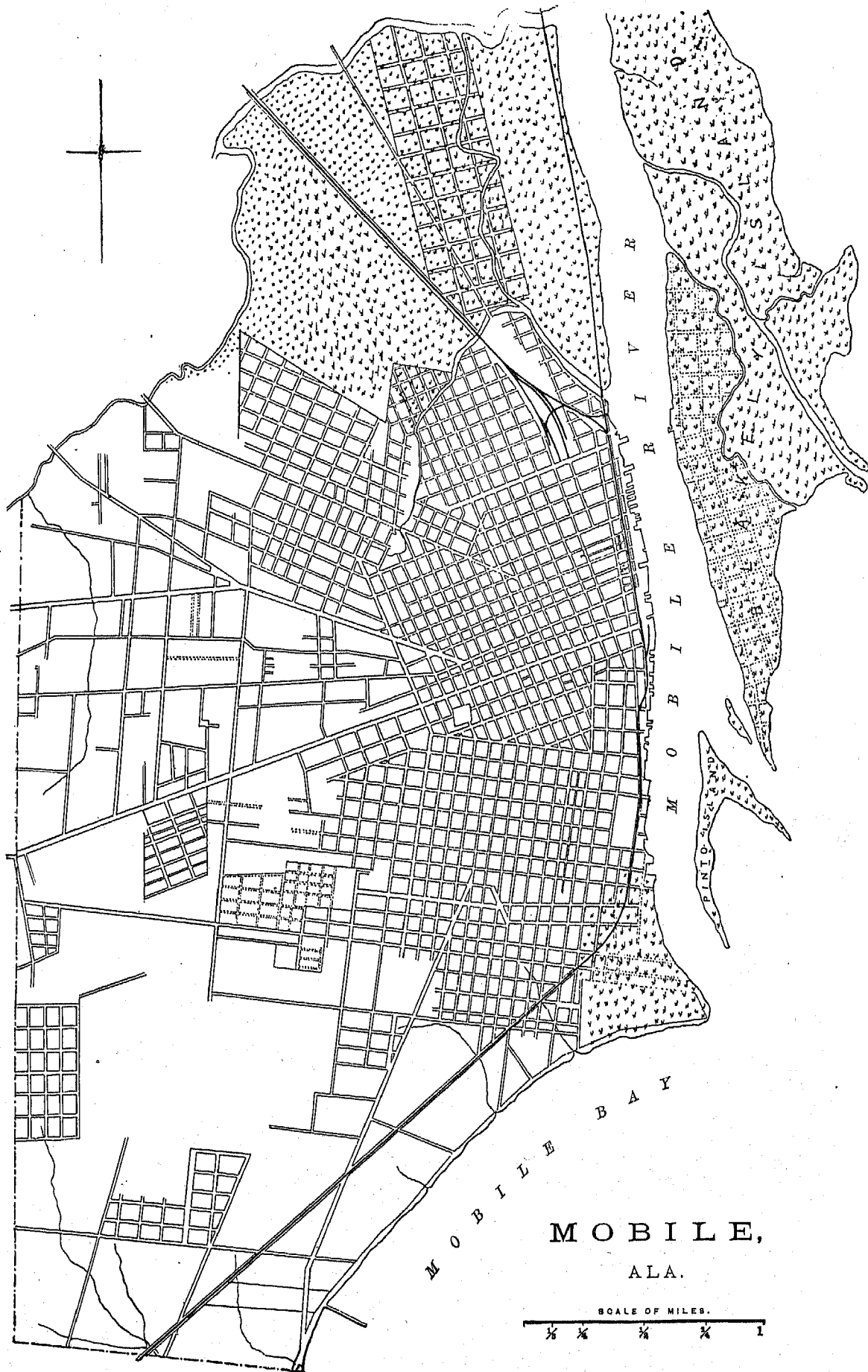
The Mobile and Alabama Grand Trunk railroad, to Bigbee Bridge, Alabama.

The Mobile and Montgomery railroad, to Montgomery, Alabama, and the New Orleans, Mobile, and Texas railroad, to New Orleans, both operated by and included in the system of the Louisville and Nashville railroad.

The Mobile and Spring Hill railroad, to Spring Hill, Alabama.

MOBILE IN 1815.





TRIBUTARY COUNTRY.

The principal product of the country tributary to the city is cotton, and the receipts and exports of this staple are the most important of the business interests of Mobile. During the year ending September 1, 1880, 358,971 bales of cotton were received here, coming in from the country reached by the several railroad lines or bordering on the rivers that empty into the bay, some 2,000 bales being hauled to the city in wagons. In addition to cotton, vegetables are largely raised and sent here for shipment to the northern cities. Considerable corn and oats are raised along the Alabama, Tombigbee, and Warrior rivers.

TOPOGRAPHY.

The corporate limits of the city extend 6 miles north and south and 2 or 3 miles west from the river. It is built on a sandy plain only slightly elevated above the level of the sea, but sufficiently elevated for fair natural drainage. The soil consists of a coarse loose sand, which absorbs the heaviest rains in a few hours, leaving the streets perfectly dry. The country along the Mobile river, to the north of the city, and also that to the east for a number of miles, is marshy, and at certain seasons of the year malarious; but on the south and southeast there is a broad sweep to the gulf, across which blows the sea-breeze for which Mobile is so noted. The country rises as it recedes from the river, and on the west and northwest are high, sandy pine hills, where pure water is abundant and malaria unknown, affording to the inhabitants of the city delightful summer homes and inexpensive retreats during the hot months.

CLIMATE.

From the tables of the Smithsonian Institution, covering a series of years from 1840 to 1873, the highest recorded summer temperature is given as 98°, and the lowest recorded winter temperature as 19°. The mean summer temperature is 82.45°, and the mean winter temperature 55.05°. The annual rainfall amounts to about 58 inches. The prevailing wind is south, varied by north winds, chiefly in the winter months. The former moderates the temperature to such an extent in summer as to render the city comparatively cool and pleasant, with a temperature below that of many inland cities of higher latitude.

STREETS.

The streets, especially the more modern ones, are generally wide and well laid out, and are shaded by trees, the live-oak, water-oak, magnolia, etc., which give to the city a semi-tropical appearance. Flowers and flower-gardens abound, and the orange tree flourishes and bears fruit. A few of the principal streets are paved for a portion of their distance, but most of these require repairs. There are a few shell roads, some old plank roads, and some are simply defined as dirt-streets. A large amount of work is done annually, but, as it is not permanent, there is no real improvement. The average annual expenditure from 1872 to 1878 is \$27,272. There are 6 lines of horse-railroads in the city, and one of these runs to Spring Hill, a pleasant suburban retreat 6 miles from the city.

WATER-WORKS.

The water-supply is brought from Spring Hill and is of unusual purity and excellence.

GAS.

The city is lighted with gas, which to a large extent is manufactured from coal taken from the interior of the state.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Government street, the favorite promenade, is shaded by fine oak trees and bordered by handsome houses, surrounded by luxuriant gardens. Bienville park, between Dauphin and Saint Francis streets, is also a place of much resort. It is improved with live-oak and other shade trees. There is also Washington square, which is kept in good condition. Spring Hill, Frascati Garden, and the grounds of the Agricultural and Mechanical Association of Mobile are among the pleasure-resorts of the citizens.

PLACES OF AMUSEMENT.

There is a theater in the city, and also two halls—Odd Fellows' hall and Temperance hall.

DRAINAGE.

There does not appear to be any system of drainage in the city.

CEMETERIES.

There are 4 cemeteries in the city, as follows:

Magnolia Cemetery, area 60 acres, is situated in the southwestern part of the city.

Jewish Cemetery, area 10 acres, adjoins the above.

Catholic Cemetery, area 65 acres, is situated just outside the northwestern limit of the city.

The *Old Grave-yard*, situated near the center of the city, has an area of 2 acres. The latter is now but seldom used, and then only by the old families, though there is no prohibition against interments being made in it.

MARKETS.

There are three public or corporation markets in Mobile. The Southern market, costing about \$50,000, covers about $1\frac{1}{2}$ acre of land. Prior to an ordinance that reduced the price of stalls to a merely nominal sum, the annual rental of this market was \$10,000. The markets are open from 3 to 9 a. m.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary authority of the city is vested in a board of health, an independent organization created by state law, but deriving its authority from the city ordinances, and composed of five members, all of whom are physicians. In the absence of any declared epidemic the annual expense of the board is \$2,000, incurred in defraying the salaries of health officer and clerk and incidental office expenses. During an epidemic the board has no power to increase expenses; it can only make recommendations, and it remains with the county and city authorities to take action. The board's authority, either in the absence or in the presence of epidemics, is only advisory, except as to abatement of nuisances, etc. The health officer is the chief executive officer of the board; he makes regular inspections and sees that all health ordinances and all regulations of the board are properly enforced. His salary is \$100 per month, and he is a physician. One sanitary inspector is employed, who has police powers. The board meets every Monday evening and transacts its business as a distinctive body. One general annual house-to-house inspection is made, and after that a sanitary inspector is employed to attend to all complaints, and to make inspections of the entire city. All nuisances that are considered detrimental to public health are ordered abated, and in case of failure, after due notice, the responsible parties are brought before the recorder. The inspection and correction of all defective house-drainage, privy-vaults, cesspools, sources of drinking-water, etc., are the same as that adopted toward nuisances. Street-cleaning is in charge of the street commissioner. The board exercises no control over the conservation and removal of garbage, except to recommend the manner and time for its removal. Burial permits are issued by the health officer on certificates signed by the attending physician. The board forbids the pollution of streams and harbors, and regulates the removal of excrement.

INFECTIOUS DISEASES.

Small-pox patients are isolated, the well-to-do by being quarantined at their own homes and a yellow flag displayed on the house-front, while the poor are sent to the small-pox hospital, 5 miles southwest from the city limits. Scarlet-fever patients are neither isolated nor quarantined at home. If diseases of a contagious nature should break out in either public or private schools, the board would take action. Vaccination is compulsory for persons living near to localities infected with small-pox, and, if patients are not able to pay, it is done at the public expense. The health officer keeps a full record of all births, diseases, and deaths in the city; and makes weekly returns to the board.

REPORTS.

The board formerly reported to the city authorities, and the reports were published monthly in the official organ of the city as part of the municipal proceedings, and annually at the close of the year. It is not stated how the board reports at present.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its regular force. The work is done wholly by hand. Some of the streets are cleaned every day, some once a week, others once a month, while those in the suburbs receive attention only once a year. There are few complaints as to the efficiency of the work. The annual cost of the work is \$20,000, which includes all street-work, and the removal of garbage, etc. The sweepings are dumped in the outskirts of the city.

Removal of garbage and ashes.—All garbage is removed daily at the expense of the city, with its own force. The garbage is kept in suitable vessels, mixed with ashes, and set out on the sidewalks for removal. The garbage and ashes are taken to the "dump" in the same manner as street-sweepings. The system is reported to work well, and there are no complaints.

Dead animals.—The carcasses of all animals are removed to a fertilizing manufactory, $3\frac{1}{2}$ miles from the city, by the contractor, who is paid about 95 cents per head. Owners are required to report all dead animals to the central station. The number of dead animals annually removed is about 800—500 dogs, goats, etc., and 300 horses and cows. The ordinance regulating the system is perfect, but owners fail at times to report promptly.

Liquid household wastes.—The liquid household wastes are generally emptied into the privy-vaults, a very little going into cesspools, and only a small amount into street-gutters. The cesspools are not generally water-tight, are not provided with overflows, in a few instances receive the waste from water-closets, and are cleaned out in the same way as privy-vaults. The street-gutters are occasionally flooded. Offensive drinking-water has been found in wells that were located near privy-vaults.

Human excreta.—There are very few water-closets in the city, some delivering into the sewers and some into cesspools, and nearly all the houses depend on privy-vaults. There are very few of these latter even nominally water-tight. There are no special regulations as to their construction, and they are emptied by regular city scavengers with odorless excavators, the contents being taken outside the city limits and disposed of in such manner as may be prescribed by the board of health. It is allowed to be used for manure, but not on land within the gathering-ground of the public water-supply. It is reported that the regulations for, and the system of, cleaning vaults and cesspools are perfect, but that the careless manner in which the vaults are built tends to interfere with the working of the system and to cause offensive odors. The dry-earth system has increased lately, and about one-fifteenth of the privy-vaults have been abolished.

Manufacturing wastes.—There do not appear to be any special regulations regarding the disposal of either liquid or solid manufacturing wastes.

POLICE.

The police force is appointed by the police board, and its equipment, discipline, control, and management are intrusted to the captain of police, under the control of the recorder, subject to such rules, regulations, and ordinances as may from time to time be made by the corporate authorities. The captain of police is the executive officer, and it is his duty to see that the public peace is preserved. His salary is \$112 50 per month. The rest of the force consists of 1 detective at \$55 per month; 4 sergeants and 1 clerk at \$50 per month each; 1 porter at \$33 75 per month; and 2 sentinels and 50 patrolmen at \$40 per month each. The uniform is blue, and costs \$18 per suit, and each man furnishes his own. The patrols are equipped with clubs, chain twisters, revolvers, and whistles. The hours of service are: Day watch, from 7 a. m. to 7 p. m.; night watch, from 7 p. m. to 6 a. m.; and the total length of streets patrolled by the force is 100 miles.

During the past year 1,434 arrests were made, the principal causes being, for disorderly conduct, 703; drunkenness, 191; larceny, 98; vagrancy, 116, etc. Their final disposition was: Fined, 800; discharged, 425; held for trial, 147; sent to county jail, 52; and turned over to other authorities, 10. The total amount of property lost or stolen and reported to the police during the year was \$1,200, and of this, \$1,000 was recovered and returned to the owners. During the same period there were 125 station-house lodgers, meals to the value of \$20 having been furnished to them. The number of station-house lodgers in 1879 was 150. The force is required to co-operate with the fire department by preserving order and protecting property at all fires, and with the health department by enforcing the health ordinances. Special policemen are not appointed. The yearly cost of the police force is (1880) \$28,941 20.

COMMERCE AND NAVIGATION.

[From the reports of the Bureau of Statistics for the fiscal years ending June 30.]

Customs district of Mobile, Alabama.	1879.	1880.
Total value of imports	\$544, 628	\$425, 980
Total value of exports:		
Domestic	\$6, 219, 818	\$7, 187, 703
Foreign	None.	1, 037
Total number of immigrants	None.	None.

Customs district of Mobile, Alabama.	1879.		1880.	
	Number.	Tons.	Number.	Tons.
Vessels in foreign trade				
Entered	122	59, 166	130	61, 471
Cleared	131	57, 518	156	69, 181
Vessels in coast trade and fisheries:				
Entered	84	15, 981	74	20, 212
Cleared	54	15, 652	55	16, 787
Vessels registered, enrolled, and licensed in district.	109	14, 454	121	15, 291
Vessels built during the year	8	112	5	141

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Mobile for 1880, being taken from tables prepared for the Tenth Census by Erwin Ledyard, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries.....	91	\$525,708	622	37	45	\$261,643	\$800,001	\$1,335,570
Blacksmithing.....	7	900	9	.....	.....	4,176	1,830	8,000
Boots and shoes, including custom work and repairing.....	6	3,800	10	2	.....	6,400	6,700	17,500
Bread and other bakery products.....	9	25,200	25	4	2	9,558	42,470	75,000
Carpentering.....	9	11,600	117	.....	.....	37,080	73,500	127,750
Carriages and wagons.....	4	10,400	26	.....	.....	12,600	19,500	43,100
Flouring and grist-mill products.....	6	28,000	49	.....	.....	18,000	320,500	387,500
Foundry and machine-shop products.....	5	59,808	73	.....	5	28,550	19,547	59,000
Furniture.....	3	8,700	8	1	1	2,400	7,750	13,630
Lumber, sawed.....	3	147,000	105	.....	.....	39,500	111,000	185,000
Painting and paperhanging.....	3	5,500	14	.....	.....	4,700	4,500	13,500
Printing and publishing.....	5	37,000	27	.....	.....	17,740	27,941	58,375
Saddlery and harness.....	3	10,600	7	.....	1	3,750	6,200	13,140
Tinware, copperware, and sheet-iron ware.....	7	12,950	28	.....	.....	10,600	28,400	52,750
Tobacco, cigars and cigarettes.....	5	8,300	19	.....	2	9,818	7,000	19,000
All other industries (a).....	16	161,450	105	30	34	56,773	143,123	261,414

(a) Embracing bookbinding and blank-book making; brooms and brushes; confectionery; cotton goods; lock and gun-smithing; lumber, planed; marble and stone work; plumbing and gasfitting; sash, doors, and blinds; scales and balances; shipbuilding; and wheelwrighting.

From the foregoing table it appears that the average capital of all establishments is \$5,777 01; that the average wages of all hands employed is \$371 65 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$12,353 26.

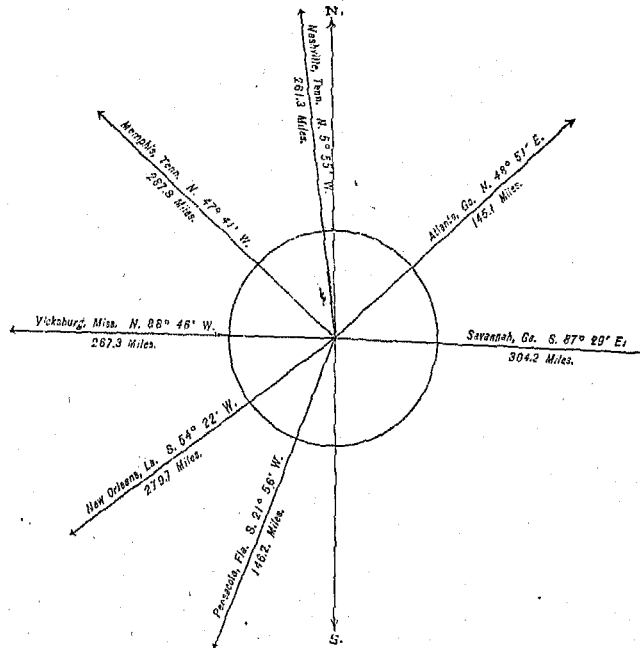
MONTGOMERY,

MONTGOMERY COUNTY, ALABAMA.

POPULATION

IN THE
AGGREGATE,
1840-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	2,179
1850.....	8,728
1860.....	8,843
1870.....	10,588
1880.....	16,713



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	7,591
Female	9,122
<hr/>	
Native	16,062
Foreign-born	651
<hr/>	
White	6,782
Colored	9,931

Latitude: 32° 23' North; Longitude: 86° 18' (west from Greenwich); Altitude: 162 to 413 feet.

FINANCIAL CONDITION:

Total Valuation: \$5,506,994; per capita: \$330 00. Net Indebtedness: \$567,900; per capita: \$33 98. Tax per \$100: \$2 41.

HISTORICAL SKETCH.

The town of Montgomery was incorporated in 1819 by the legislature of Alabama, which united the villages of New Philadelphia, East Alabama Town, and Alabama Town to form it. The site is marked by two mounds, about 90 feet square, which show that the spot was known to that mysterious people, the mound-builders. Although it was visited by De Soto in 1540, by Bienville in 1714, and by the English in 1763, no settlement was made until 1817. In that year Andrew Dexter and John Falconer purchased a lot of land about 20 miles below the spot where the Coosa and the Tallapoosa meet to form the Alabama river. Here they founded the village of New Philadelphia, the settlers being chiefly northern men. In the next year, 1818, the villages of Alabama Town and East Alabama Town were settled; and finally, as already stated, the three places were united in 1819 to form the

town of Montgomery. Few events of general interest mark its history; the arrival of the "Harriet", the first steamboat, in 1821, the breaking of the ground for the Montgomery railroad in 1836, and the floods in the river recurring at periods of 11 years, being the events of chief interest to the citizens.

Montgomery was made a city in 1837, and in 1846 became the capital of the state in the place of Tuscaloosa. On February 4, 1861, delegates from six southern states met in the city and formed the southern confederacy, and on February 18, Jefferson Davis and Alexander H. Stephens were inaugurated as president and vice-president of the confederacy. Since 1860 the population has nearly doubled. The trade with the surrounding country is important; the annual receipts of cotton average 75,000 bales; and there are several large machine-shops and founderies. Within 60 miles of the city are extensive fields of coal and iron. There are several schools and academies, and about a dozen churches.

MONTGOMERY IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Montgomery:

LOCATION.

Montgomery is situated in latitude $32^{\circ} 23'$ north, longitude $86^{\circ} 18'$ west from Greenwich, on the left bank of the Alabama river, 331 miles from Mobile, and about 20 miles below the junction of the Coosa and Tallapoosa rivers. The lowest point is 162 and the highest 413 feet above the level of the sea. The Alabama river from October to April is a stream about half a mile wide, while from April to October the width varies from 34 to 50 feet. The current at low stages runs at the rate of 2 miles per hour; at high stages the rate is 6 miles per hour. Communication by the river is open to steamers to Wetumpka above the city, and to Selma, Claiborne, and Mobile below.

RAILROAD COMMUNICATIONS.

The city is touched by the following-named railroads, all of which are included in the Louisville and Nashville railroad system:

The Western Railroad of Alabama connects Montgomery with West Point, Georgia, and has a branch line to Selma, Alabama.

The Montgomery and Eufala railroad connects these two places.

The Mobile and Montgomery railroad connects the city with the port of Mobile, and a branch line extends to Pensacola.

The South and North Alabama Division of the Louisville and Nashville railroad connects it with Decatur, Alabama.

These railroads furnish easy and rapid communication with all parts of the South and West.

TRIBUTARY COUNTRY.

The country about Montgomery is almost entirely agricultural in character, cotton being the staple product. Farm produce and hay are raised, and the trade in lumber is quite extensive. There is also a considerable trade in bituminous coal from the Alabama coal-fields.

TOPOGRAPHY.

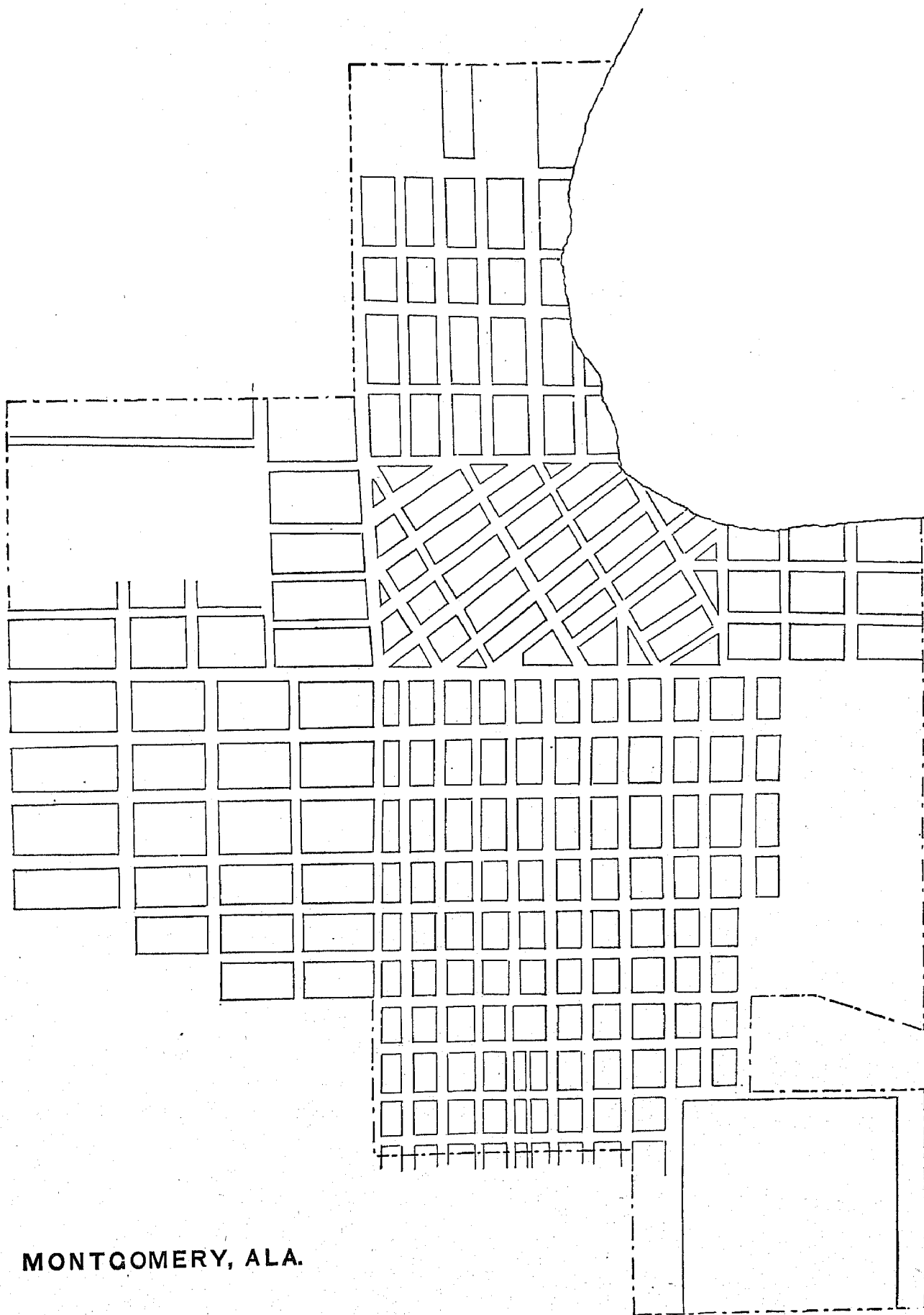
The soil of Montgomery is red clay and alluvium, resting upon underlying limestone. The land slopes gradually to the Alabama river, with a descent of 4 feet per 100. The city is surrounded by high lands, and on the northeast side is shut in by a large swamp, which includes a pond covering about 8 acres. The southwestern shore of the Alabama is subject to biennial overflows, and is therefore rather marshy. To the north, west, and southwest the country is wooded. Within a radius of 5 miles of the city the soil is a heavy clay. The city is situated on a bluff, the character of which is indicated by the Indian name for the spot, "*Chunnanuga Chatte*"—"high red bluff".

CLIMATE.

The highest recorded summer temperature is 107° , although in average years the thermometer does not go above 100° . The lowest winter temperature in average years is 12° , but a temperature of 8° has been recorded.

STREETS.

The total length of the streets of Montgomery is 73 miles. Of these, 46 miles are paved with broken-stone (pebble) pavement and 26 miles with gravel. No record of the cost of laying or repairing has been kept. The sidewalks are of various materials, grades, and dimensions, but are mainly of gravel. The gutters are of brick and



MONTGOMERY, ALA.

ditching, and are chiefly used to carry storm-water into the inlets of the sewers. Many streets have no gutters, while on others the gutters are useless, except for gentle rains. Large wooden sewers serve for subsoil drainage, and when they are open are substituted for gutters. The work of repairing and constructing streets is done by day labor, and in 1880 cost about \$140 per week.

There are no horse-railroads. A single omnibus line is maintained. It has 3 vehicles and 6 horses, and employs 4 men. The fare is 5 cents.

WATER-WORKS.

The works for the public water-supply are the property of a private corporation, and were built at a cost of about \$130,000. The water is pumped by a Worthington pump to a reservoir, and from there distributed by pipes through the city. About 500,000 gallons are pumped daily. Water-meters are in common use.

GAS.

The city is supplied with gas by a private corporation. The average daily production is about 60,000 cubic feet. The charge per 1,000 feet is \$3 50. The city pays \$20 per annum for each of its 171 gas street-lamps.

PUBLIC BUILDINGS.

The buildings owned and used by the city include a market building and a city hall combined, a powder magazine, a hospital building, and an engine-house. The total cost of these buildings was \$165,000; the city hall and market building cost \$130,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

An effort is being made to create a few public parks. Two spaces have already been set aside as parks, and the city code provides for the election of six park commissioners, to receive and collect subscriptions for the purpose of procuring and beautifying suitable grounds.

PLACES OF AMUSEMENT.

The city has two theaters—McDonald's opera-house, seating 1,000, and Montgomery theater, seating 1,500. Each of these pays an annual license of \$200. McDonald's concert-hall, seating 450, is the only concert- and lecture-room. There are no concert- and beer-gardens.

DRAINAGE.

Sewers are built according to the supposed requirements of each case, and not according to any uniform design. They are made of brick, and also to a considerable extent of wood. There are a good many open drains. They are designed only to relieve the city from storm- and surface-water, and are not suitable to receive domestic wastes. The outflow (except from the Common and Goldthwait Streets sewers) is discharged upon low bottom-lands north of the city, overflowed in time of high water. There is no ventilation of sewers, except through inlets and the open mouths. They are said to be flushed at the inlets two or three times a week from the fire hydrants. Men frequently have to be sent in to clear obstructions. For the past few years this kind of work has become so offensive that it is done in the night. The city pays the whole cost of construction. Brick sewers are said to cost, for the brick work, \$10 50 per thousand, and for the earth-work and materials, \$325 per thousand feet. The wooden drains cost about \$590 per thousand feet. The work is done as directed by the street committee, under superintendence of the street overseer. Wooden drains to the extent of 110,000 feet (board measure) have been relaid yearly, and none serve longer than from two and a half to three years.

CEMETERIES.

There is but one cemetery connected with the city. This is situated between Columbus and Ripley streets, and contains a little more than 6 acres. It is controlled by the city government, although the Catholics have purchased a part in the southeast corner, which they manage by themselves, and the Hebrews have also purchased a small portion. The western part of the cemetery is reserved for those unable to pay for burial, while the rest, except the parts owned by the Hebrews and the Catholics, is divided into lots, which are sold at a regular price of \$1 per linear foot. Since 1876 there have been 2,952 interments in this cemetery.

No interment is allowed to be made outside the cemetery. The sextons are required to keep a register of burials, and before making any interment must obtain a physician's certificate of death. Graves are generally vaulted and are made 6 or more feet deep, although the city code requires only 5 feet. Burials are ordinarily made within from 18 to 24 hours after death.

MARKETS.

The only market in Montgomery is one situated in the city building and owned and controlled by the city. The cost of the building was \$130,000. It contains, in the market portion, 22 butchers' stalls, rental \$100 a year; 36 vegetable stalls, \$30; 2 stalls used for restaurants, \$200; and 2 used by confectioners, \$100. The total

income from rentals is \$4,189 66; from butchers' fees, \$1,310 85; and an income from the public sales of \$871 25; making a total income of \$6,371 76. The market is open daily (Sundays excepted) from April to October between the hours of 4 and 10 a. m., and during the rest of the year between 5 and 11 a. m. In addition, it is open from 2 to 9 p. m. on Saturdays. The gross annual sales are estimated at \$250,000. The city compels all dealers in fresh meats, fish, and vegetables in any place other than the market to pay an annual license of \$500. No one is allowed to sell articles for sale at the market in any other place during market-hours, except occupants of vegetable stalls, who may make such sales after 8 a. m. Hucksters and peddlers pay an annual license of \$50. The clerk of the market collects from each holder of a butcher's stall 25 cents for each head of cattle, and 10 cents for each calf, hog, sheep, lamb, kid, or goat slaughtered or brought to market by him; and from temporary holders of stalls and from dealers on the streets, 25 cents for every quarter of beef offered for sale; 5 cents for every quarter of mutton, lamb, pork, goat, or kid; 10 cents for every sucking pig; 15 cents for every dressed hog under 100 pounds in weight, and 25 cents for every hog dressed of more than 100 pounds. The market is controlled by a committee on the market, and is in charge of a clerk of the market.

SANITARY AUTHORITY—BOARD OF HEALTH.

The board of health of Montgomery is simply a branch of the state board of health, and receives its authority from it. In the absence of an epidemic the board incurs no expense, and its authority is limited to the city and the territory within 1 mile of the city. In time of an epidemic the board can incur any expense, and the limits within its control are extended so as to include the county. It is simply an advisory board to the city council, and exerts no independent authority; it has no regular and stated meetings. The chief executive officer is the health officer of the city, who is also city physician, and *ex officio* registrar of vital statistics; he receives no salary for his duties as health officer. All the members of the board are physicians.

INFECTIOUS DISEASES.

Small-pox patients are isolated at home in most cases. No action is taken in regard to scarlet-fever patients. There is no pest-house, but in case of necessity one is constructed. Vaccination is not compulsory and is not done at the public expense. Physicians and others knowing of cases of infectious, contagious, and malignant diseases in the city are required to report at once to the mayor or chief of police. The city council may at any time establish a quarantine, and any one violating it is liable to a fine of not more than \$500.

Since 1870 a careful registration of births, diseases, and deaths has been maintained by the registrar of vital statistics.

REPORTS.

The board reports only to the state board of health.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned by the city with its own force and entirely by hand labor. Carts go about the city every day collecting the filth which has been thrown into the streets. The sweepings thus collected are deposited in a ravine on the northern limit of the city. The work is done under the direction of the superintendent of streets and of the health officer.

Removal of garbage and ashes.—Garbage and ashes are removed by the city with its own force. Garbage, while awaiting removal, is kept in boxes, which are placed on the sidewalks at a certain hour, ready for the scavenger on his tour of collection; it may be mixed with ashes. Both garbage and ashes are deposited, like the street-sweepings, in the ravine above mentioned. The cost to the city is about \$2,000 a year.

Dead animals are removed by the city, which charges the owner \$1 50 for each animal so removed. They are taken to the potter's field, immediately east of the city, and there buried. About 75 animals are removed each year.

Liquid household wastes.—The liquid household wastes run into the sewers where these exist. Where there are no sewers, they pass into the street-gutters or into cesspools, which, while tight on the sides, are dug down until sand is struck and the liquid wastes can thus filter away. The street-gutters are flushed two or three times a week. In some cases cesspools receive the waste of water-closets. No deleterious effects are known to have resulted from the overflow or filtration from cesspools so as to contaminate sources of drinking-water. The cesspools are cleaned under the direction of the superintendent of streets.

Human excreta.—Water-closets are little used outside the business portion of the city, but they are rapidly being introduced into private residences. Most of them deliver into the sewers, some into cesspools. Only about half the privy-vaults are even nominally water-tight. The dry-earth system is not used in the city. Night-soil is removed beyond the city limits and buried.

Manufacturing wastes.—There are no factories giving rise to wastes which need to be disposed of through a sewer system or which are injurious to the public health.

POLICE.

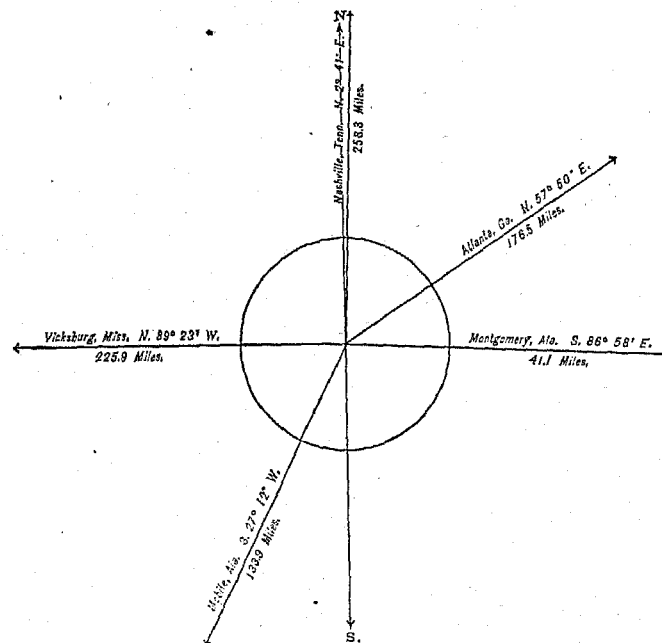
The police force of Montgomery is elected by the city council and governed by the mayor and the chief of police, the latter of whom is the chief executive officer; he has general charge of the department, and receives a salary of \$1,500 a year. The rest of the force consists of a captain, salary \$90 per month; a sergeant, salary \$75 per month; and 16 men, salary \$65 per month each. The uniform consists of blue coat and trousers with a black felt hat in winter, while in summer a blue flannel blouse is worn. The men provide their own uniforms, which cost \$60 each. They are armed with clubs, are on duty 12 hours each day, and patrol 73 miles of streets. During 1880 the police made 1,964 arrests, the principal cause being drunkenness. The police recovered and returned property to the value of \$1,023 which had been lost or stolen. During the year 516 station-house lodgers were accommodated; free meals are furnished to these lodgers, but no record of the cost is kept. The police co-operate with the fire department at fires, and with the health department in reporting unclean premises and unsafe buildings. Special policemen are appointed by the mayor when occasion demands, and these are treated as regular members of the force. The cost of the department in 1880 was \$15,546 82.

SELMA, DALLAS COUNTY, ALABAMA.

POPULATION

IN THE
AGGREGATE,
1850-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	1,728
1860.....	3,177
1870.....	6,484
1880.....	7,529



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	3,432
Female	4,107
<hr/>	
Native	7,248
Foreign-born	281
<hr/>	
White	3,345
Colored	4,184

Latitude: 32° 25' North; Longitude: 87° (west from Greenwich); Altitude: 180 to 240 feet.

FINANCIAL CONDITION:

Total Valuation: \$2,500,000; per capita: \$332 00. Net Indebtedness: \$323,600; per capita: \$42 98. Tax per \$100: \$2 65.

HISTORICAL SKETCH.

The first white man to establish himself within what is now the city of Selma, Alabama, was Thomas Moore, who, in 1815, built himself a cabin on what is now known as "High Soapstone bluff". Here he lived alone for nearly a year, but in 1816 a party of settlers established themselves near him and began to cultivate the land. They were, however, unaccustomed to the climate of the region, and rapidly succumbed to malarial disease, so that in 1817 only few were left. In that year the "Selma Town Land Company" was organized for the purpose of dealing in lands. Among other purchases, the company bought the tract on which Moore had settled, and determined to locate a town there. Streets and lots were at once laid out, and the plan of a very pretty village was prepared. Settlers were not slow in coming, and "Moore's Bluff" was soon so flourishing that in 1820 it was incorporated as the town of Selma. The name was taken from the poems of Ossian, in which are sung the praises of Selma, the

favorite home of Fingal, and was suggested by Colonel William R. King, a leading member of the land company, who was a devoted admirer of the Scottish bard. Until 1826 the progress of the town was steady, but in that year malarial fever became so prevalent that the population fell off and immigration was almost completely stopped. Energetic measures were taken by the town authorities to improve the health of the town, and with the enforcement of sanitary regulations good health returned, bringing with it increased prosperity. The period from 1830 to 1838 was a time of plenty, but after the crisis of 1837 came hard times, that lasted until the construction of railways—about 1850—again gave an impetus to growth. The population in 1850 was 1,728, but of these inhabitants only 973 were white persons, nearly all the rest being slaves. In 1857 Selma was incorporated as a city, and about that time received quite an addition to its population by the coming of nearly 300 German immigrants.

When the civil war broke out, the city became a very important place for the manufacture of munitions of war. The few iron-clads which disputed with Admiral Farragut the possession of Mobile bay were all built and equipped at Selma. The city was taken by the federal forces, April 2, 1865, and a large extent of the business portion was burned over by the fires which destroyed the confederate supplies and work-shops. Since 1867 the advance of the city has been rapid and encouraging. About 90,000 bales of cotton were shipped from Selma during the past year. There are several machine-shops and founderies, a cotton-mill, an ice factory, a cotton-seed oil press, and other manufacturing establishments. There are twelve churches and many societies. A daily and a weekly newspaper are published in the city. Selma is supplied with gas, it has a good street-railway, and is, in short, a prosperous and pleasant city.

SELMA IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Selma:

LOCATION.

Selma is situated in latitude $32^{\circ} 25'$ north, and longitude 87° west from Greenwich, on the right bank of the Alabama river, about 70 miles below Montgomery. The highest point is 240 feet and the lowest 180 feet above the level of the gulf of Mexico at Pensacola. The Alabama river is navigable for river steamers from Mobile to Montgomery and Wetumpka, and a large trade is carried on by the city with the places along the river-banks.

RAILROAD COMMUNICATIONS.

The city has excellent railroad communication with the cities of Alabama and the neighboring states, as follows: The Selma, Rome, and Dalton railroad (the Selma division of the East Tennessee, Virginia and Georgia railroad) connects Selma with Cleveland, Tennessee, by way of Rome and Dalton, Georgia.

The Alabama Central railroad, also controlled by the East Tennessee, Virginia, and Georgia, connects Selma with Meridian, Mississippi.

The Selma and Greensborough railroad extends from Selma to Greensborough, Alabama.

The New Orleans and Selma railroad extends to Martin's station, 21 miles distant.

The Selma and Gulf railroad to Pine Apple, Alabama.

The Western Alabama railroad, a part of the Louisville and Nashville railroad system, to Montgomery, Alabama.

TRIBUTARY COUNTRY.

The country about Selma is strictly agricultural in character, confined almost exclusively to the raising of cotton and corn.

TOPOGRAPHY.

The soil of Selma is a sandy deposit overlying the Cretaceous formation which extends through the state. In boring an artesian well the following strata were found to underlie the city: The drill passed through 37 feet of clay, sand, and gravel, 53 feet of blue rotten limestone, 6 feet of sandstone, 6 feet of gray sand with water, 18 feet of blue clay, 24 feet of blue sticky sand, 17 feet of blue clay, 4 feet of green sand, 42 feet 5 inches of gray sand with water, 11 inches of green sand and sandstone, 3 feet of blue clay, 54 feet 3 inches of gray sand with water, 7 inches of sandstone, and 213 feet 10 inches of blue-grayish sand, crossed occasionally by beds of blue clay from 5 to 10 feet thick. The city is situated on a bluff shut in by the Alabama river on the south, Beech creek on the east, and Valley creek on the west; the natural drainage is into the creeks, and is excellent. There are no lakes in the vicinity. A large swamp lies from 1 to 4 miles distant along Beech creek. The country is well wooded.

CLIMATE.

The mean annual temperature of Selma is about 64.51°, the mean in summer being 79.28° and in winter 49.54°. The adjacent waters tend to produce malarial diseases. The winters are very humid, and are the cause of considerable pulmonary disease. The large swamp along Beech creek may be a cause of ill health, but its effects are not plainly appreciable.

STREETS.

The total length of the streets is estimated by the mayor at 40 miles. None of them are paved. The sidewalks in the business portion of the city are paved with brick; elsewhere they are of dirt. The gutters are of brick and wood. Trees are planted along both sides of the streets throughout nearly the whole city. The work on the streets is done entirely by the day, and costs annually about \$5,000.

There is one horse-railroad line. This has 2½ miles of track, 5 cars, and 6 mules; it employs 4 men, and during the year carried about 60,000 passengers; the fare is 5 cents. There are no regular omnibus lines.

WATER-WORKS.

There are no public water-works. The water for general use is obtained largely from artesian wells, which vary in depth from 212 to 620 feet, and yield a copious supply of excellent water. There are 65 of these wells in the city. A kind of well in very common use is made by driving into the ground to the depth of 20 or 30 feet an iron pipe from 1½ inch to 2 inches in diameter and pointed at the end and punctured with small holes.

GAS.

The city is supplied with gas by a private corporation, which began the work of lighting private houses in 1855. The daily average production is 19,500 feet. The charge per 1,000 feet is \$3. The city pays \$2 75 per month for each gas street-lamp, 100 of which are in use.

PUBLIC BUILDINGS.

The building owned by the city and used for municipal purposes is valued at \$10,000, and includes within its walls the city council chamber, the offices of the city marshal and city clerk, a court-room and prison, a market-house, and a hall. Two buildings are leased by the city for the use of fire companies.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Selma has no public parks.

PLACES OF AMUSEMENT.

There is one theater in the city; it has a seating capacity of 1,000. Theaters pay a license of \$5 to the city for each performance. A single hall, capable of seating 350, is used as a concert- and lecture-room. There are no concert- and beer-gardens.

DRAINAGE.

No information on this subject was furnished.

CEMETERIES.

The city has 2 public cemeteries and 1 private (Jewish) burial-ground. The area and location of these are not given by the city authorities, nor is the number of interments which have been made within them stated. Timely notice must be given to a sexton before presenting any body to him for burial. The bodies of white and colored people are kept carefully apart. Graves must be at least 4½ feet in depth. Burials are usually made within 24 hours after the death has occurred.

MARKETS.

There is one public market in the city. This contains 24 stalls, classified as follows: 12 butchers' stalls, 7 vegetable stalls, 2 fish stalls, and 3 coffee stalls. The rental of the various stalls is as follows: For meat stalls, from \$12 to \$15 a month is the minimum price, while some are rented at from \$26 to \$35 per month; for coffee stalls, \$16 per month; for fish and vegetable stalls, \$5 per month. The total income from the rental of stalls in 1880 was \$1,800. The market is open from 3.30 a. m. to 12 m. between May and October, and during the rest of the year, from 4.30 a. m. until 12 m. Saturdays it is open until 10 p. m. During the year the carcasses of 2,200 cattle, 1,950 sheep, 646 goats, and 550 hogs were sold from the market. No fresh meats are allowed to be sold in any other place than the market, and until after 9 a. m. no fish or vegetables. A space about the market building is reserved for farmers' and hucksters' wagons.

SANITARY AUTHORITY—BOARD OF HEALTH.

The Selma Medical Society is organized as the board of health of the city under an act of the legislature passed in 1865. It has about 20 members, all of them necessarily physicians. The powers of the board are limited to advising the city council, but its acts once approved by the council have the force of ordinances and can be enforced by the board. Its annual expenses are about \$325, which includes \$180 as salary for the health officer, and the ordinary expenditure for stationery, printing, etc. In time of an epidemic the expenses can be increased to any amount approved by the city council. No epidemic has visited the city since 1853, although small-pox was prevalent in 1866, but when there is reason to expect an epidemic the board is invested by the council with special and extended authority. The board meets regularly once a month, and oftener if necessary. The chief executive officer is a health officer, elected by the board, whose duty is to enforce the health ordinances and to maintain a good sanitary condition of the city by all means in his power. No assistant health officers or inspectors are employed, although one policeman is placed always at the disposal of the health officer, and receives \$50 a year for this service.

NUISANCES.

Inspections are made constantly by the health officer in the course of his duty. When nuisances occur they are inspected, and orders are issued for their abatement within a specified time. If these orders are disregarded complaint is made to the mayor, who can take such action as he deems best. No action is taken in regard to the pollution of rivers and streams. Defective house-drainage, cesspools, privy-vaults, sewers, etc., when they become nuisances are treated in the same way as other nuisances. The ordinances prohibit casting of filth, dirt, or offal into the streets and lanes.

GARBAGE.

The board requires that garbage be kept in boxes or barrels convenient for removal, and has charge of the carts which collect it.

BURIAL OF THE DEAD.

Whenever a death occurs, the attending physician is required to give a certificate of death; this is delivered to the sexton, who, before making the interment, must present it to the registrar of vital statistics and obtain from him a burial permit. In cases where there was no attending physician the city physician must view the body and give a certificate of death.

INFECTIOUS DISEASES.

Small-pox patients are isolated in a pest-house owned by the city, and situated just beyond the corporate limits. Scarlet-fever patients are only isolated or quarantined as the attending physician may direct. Should contagious diseases break out in the schools the board of health would take any action that seemed best. Vaccination is neither compulsory nor done at the public expense. The board may, whenever it thinks best, recommend the establishment of a quarantine, and when once declared by the city council this quarantine must be continued until such a time as the board directs.

The registrar of vital statistics keeps a record of births, diseases, and deaths, publishing monthly and annual reports embodying the returns made to him by the physicians of the city.

REPORTS.

The board reports annually to the state board of health, and whenever necessary to the city council. Only the reports of the health officer and the registrar are published by the city.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned by the city's force, and entirely by hand labor, no machines being used. The cleaning is done in summer as often as dirt accumulates, but in winter only about once in two weeks. The sweepings are either thrown into the river below the city or dumped on vacant lots beyond the city limits. The annual cost can not be given exactly; it is about \$1,200.

Removal of garbage and ashes.—Garbage is removed by carts under the charge of the sanitary policeman. While awaiting removal the garbage is kept in boxes or barrels, which, on the days when collections are made, are placed upon the sidewalks ready for removal. No ordinance prohibits keeping garbage and ashes in the same vessel. Ashes are collected in the same way as garbage, and, like it, are finally disposed of by being dumped on lands outside the city near Valley creek. The annual cost is included in the estimate for cleaning the streets, as the work is done by the same force.

Dead animals.—Under the regulations of the city, the owner of any horse, cow, mule, or any other large animal which may die in the city must remove the carcass beyond the city limits and there bury it. Small animals, such as cats, dogs, rats, poultry, etc., may be buried on the owner's premises. When no owner can be found, removal is made by the city's force.

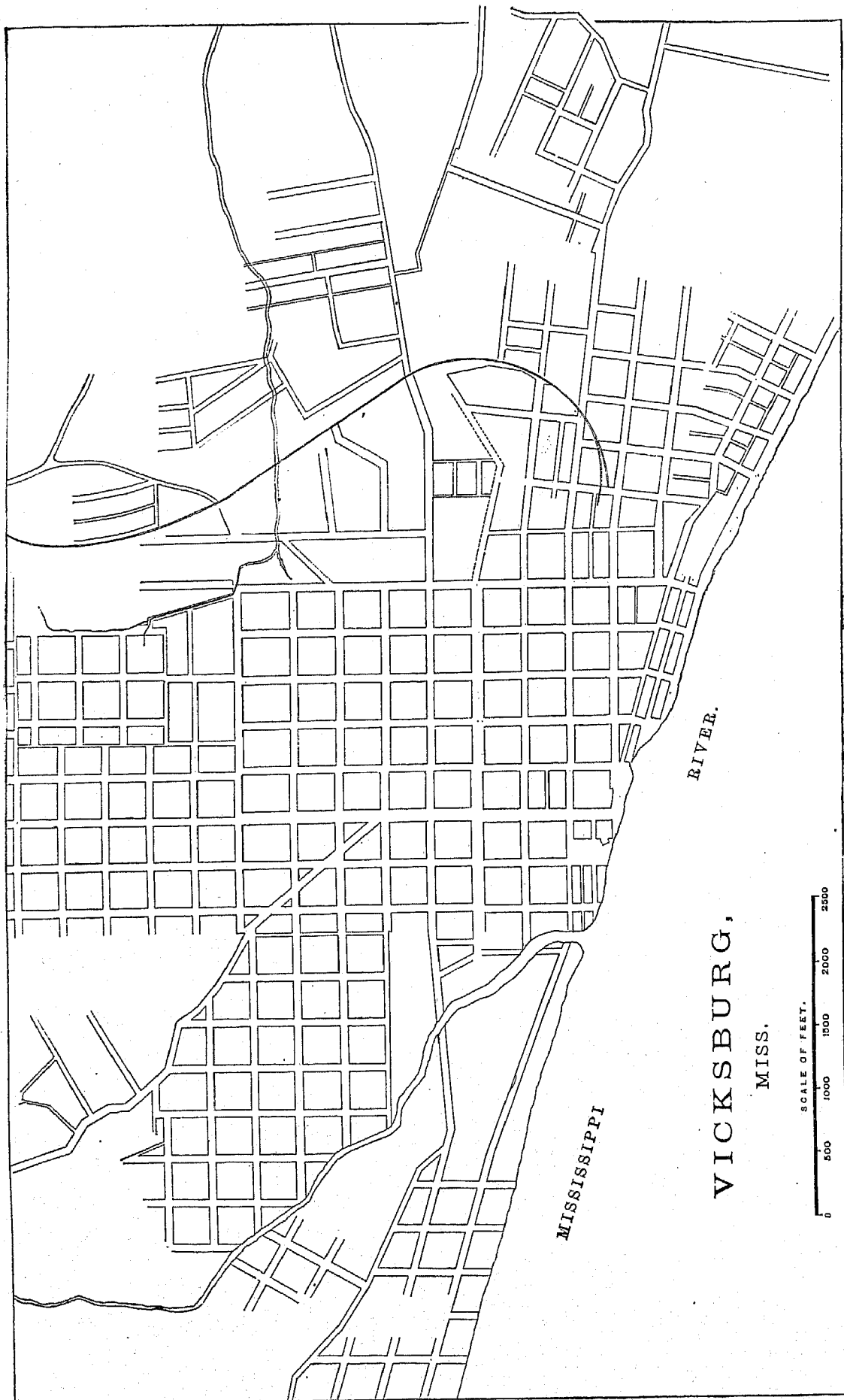
Liquid household wastes.—The liquid household wastes are either thrown into cesspools and privy-vaults or into surface privies, none being allowed to run into the street-gutters. The cesspools are porous, are not provided with overflows, in some cases receive the wastes from water-closets, and their contents must be rendered inoffensive by the use of deodorizers. Street-gutters are not flushed. No instances of the contamination of wells by the escape of the contents from cesspools and privy-vaults are known.

Human excreta.—A few water-closets are in use, but most of the houses depend on surface privies. Where deep privy-vaults exist, they are required by law to be, and are, water-tight. They must be kept odorless by the use of disinfectants and deodorizers. They may be cleaned only during cold and dry weather between the hours of 10 p. m. and 3 a. m. No vault may be made less than 6 feet distant from the line of any street. The dry-earth system is used to a small extent. Night-soil is finally disposed of by being buried in the ground.

Manufacturing wastes.—No troublesome manufacturing wastes are produced in the city.

POLICE.

The police force of Selma is appointed by the city council. The chief executive officer is the city marshal, whose salary is \$1,200 a year, and whose duty is the general supervision of the force. Eight patrolmen, salary \$50 per month each, make up the rest of the force. They wear no uniform, their badge of office being a star worn on the outer coat. They are armed with a pistol, a club, and twisters; are on duty 12 hours each day, and patrol about 40 miles of streets. During the past year 623 arrests were made, the principal causes being affrays, assault and battery, disorderly conduct, larceny, and drunkenness. No record is kept of the property reported to the police as lost or stolen, or of the number of station-house lodgers. No free meals are given to these lodgers. The police are required to co-operate with the fire and health departments in all ways. Special police are appointed when circumstances demand it, and while on duty are treated as regular members of the force. The total cost of the department during the past year was \$5,200.



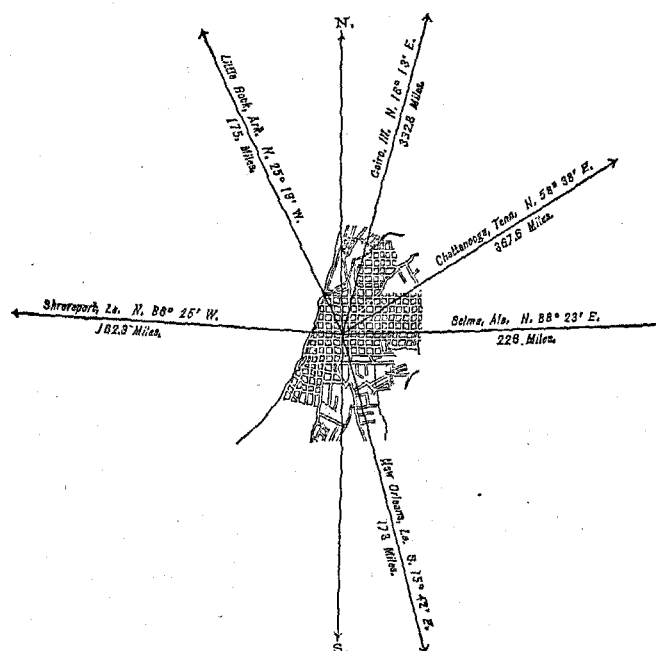
MISSISSIPPI.

VICKSBURG, WARREN COUNTY, MISSISSIPPI.

POPULATION

IN TIME
AGGREGATE,
1840-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	3,104
1850.....	3,678
1860.....	4,591
1870.....	12,443
1880.....	11,814



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	5,575
Female	6,239
Native	10,575
Foreign-born	239
White	5,575
Colored	*2,890

* Including 1 Chinese and 2 Indians.

Latitude: 32° 23' North; Longitude: 90° 50' (west from Greenwich); Altitude: 350 feet.

FINANCIAL CONDITION:

Total Valuation: \$3,582,000; per capita: \$303 00. Net indebtedness: \$373,218; per capita: \$31 59. Tax per \$100: \$4 45.

VICKSBURG IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Vicksburg:

LOCATION.

The city lies on the east bank of the Mississippi river, midway between New Orleans and Memphis. It is the capital of Warren county, and is the first city in size and importance in the state. Vicksburg is built on a range of hills that skirt the Mississippi and Yazoo valley from Memphis, and touches the river-bank here. It is therefore the natural outlet for the products of the country near the Mississippi, and the fertile valleys of the Yazoo, Sunflower, and tributary streams. The leading staple is cotton, and the commerce and no small degree of the city's prosperity depend on the success of the cotton crop. Several lines of river steamers have their termini here. Vicksburg has

a merchants' and cotton exchange, banks, saw-mills, lumber factories, etc. The Vicksburg and Meridian railroad, from Meridian, terminates here; the Vicksburg, Shreveport, and Pacific railroad has its eastern terminus opposite Vicksburg on the river, and runs to Monroe, Louisiana; and the Mississippi Valley and Ship Island railroad runs from Vicksburg to Goodrum's, Mississippi.

Formerly Vicksburg was situated directly on the east bank of the river, with a long narrow neck of land forming a peninsula opposite the city. During the siege of Vicksburg, in 1863, General Grant attempted to divert the channel of the river through the peninsula, 3 miles below the city, but failed. On the 26th of April, 1876, the peninsula, which had been gradually wearing away for years, had narrowed to 153 feet in width, and, at 2.10 p. m. on that day, the water broke through, forming a cut-off directly opposite the city, so that Vicksburg is now upon a branch of the river with an island in front.

PUBLIC BUILDINGS.

Vicksburg has the usual complement of churches, schools, and municipal accessories.

PLACES OF AMUSEMENT.

Vicksburg has one theater, seating capacity 600, and a concert-hall controlled by a club. Theaters pay a yearly license fee to the city of \$50. There are no concert- and beer-gardens.

DRAINAGE.

With the exception of a single brick sewer in Washington street, draining but a limited portion of the city, the sewerage of Vicksburg is entirely by surface gutters, which convey the drainage into the river.

CEMETERIES.

Vicksburg has 2 burial grounds—the *City Cemetery* and the *Jewish Cemetery*. The first lies northeast of the city and contains 50 acres; the latter lies to the east.

The *City cemetery* is owned and controlled by the city. Lots herein are sold, 20 by 20 feet, at \$30 each, and purchasers, it is stated, are not required to exercise any care of their lots or to improve them in any way.

The *Jewish cemetery* is owned by the Hebrew society. In it interments are made in rows, according to age and sex, there being a row each for male adults, female adults, male infants, and female infants. Lots are not sold as in the *City cemetery*.

Before burials can be made a certificate of death must be given by the attending physician to the health officer, who then issues a permit. The lawful depth of graves is $5\frac{1}{2}$ feet, but, owing to the wetness of the ground at certain seasons of the year, all graves can not be dug to this depth. There is no regulation concerning the time that may elapse between death and burial. The total number of interments in both cemeteries, from 1852 to 1880, inclusive, is 15,593. This includes many soldiers who died or were killed during the civil war and interred here, all still-born infants, and all who died within the city limits and were afterward sent elsewhere for interment; so in this respect the figures represent the total of a mortuary register rather than a precise record of interment.

MARKETS.

Vicksburg's market-house is located on Munroe street, between Main and Jackson streets. It is 100 by 36 feet in dimensions, and contains 8 meat, 6 fish, and 24 vegetable stalls. Along the sidewalks and around the market is standing-space for at least 50 wagons. Meat stalls rent for \$100 a year each, while the total rental for the rest of the stalls is about \$900 per annum. The market is open from 4 to 8 p. m., and the building is valued at \$4,000. By far the greater amount of the retail supply of meats, poultry, fish, and vegetables of the city is sold at private stores and stands. An ordinance prohibits peddling or hawking during market hours.

POLICE.

The police force of Vicksburg is appointed and governed by the board of mayor and aldermen. Under the supervision of the mayor the chief of police is the commanding and executive officer of the force. He must devote his whole time to the discharge of his duties, which include the enforcement of all laws and ordinances, and he must attend to and endeavor to secure the prosecution and conviction of all offenders. His salary is \$125 per month. The rest of the force consists of 16 men, including 2 guards at the prison and 2 guards for the street-gang. The uniform for winter is of heavy blue cloth with black hat, and for summer it is blue flannel with Panama hat. The men pay for their uniforms. Policemen are equipped with pistol, club and belt, and whistle. Patrolmen are divided into day and night forces, each serving 12 hours. During the past year there were 2,136 arrests made, chiefly for drunkenness, disorderly conduct, fighting, gaming, vagrancy, larceny, etc. Property stolen and lost and reported to the police during the year amounted to \$22,033, and of this, \$19,065 was recovered and returned to the owners. During the same period there were 421 station-house lodgers, as against 511 in 1879. No food of any consequence is furnished to these lodgers. The police force co-operates with the fire department by saving property at fires and preserving it from theft, and by preventing interference with the firemen's work. Special policemen are appointed by the chief, for service at elections and upon holidays; their standing and duties are the same as those of the regular force. The yearly cost of the police force (1880) is about \$10,000.

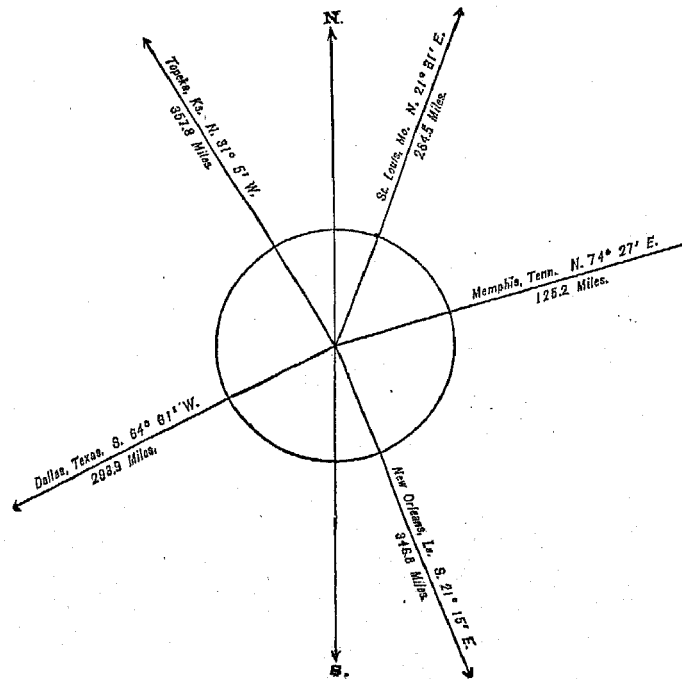
ARKANSAS.

LITTLE ROCK, PULASKI COUNTY, ARKANSAS.

POPULATION

IN THE
AGGREGATE,
1850-1880.

	Inhab.
1790.....	.....
1800.....	.....
1810.....	.....
1820.....	.....
1830.....	.....
1840.....	.....
1850.....	1,967
1860.....	3,727
1870.....	12,380
1880.....	13,138



Latitude: 34° 40' North; Longitude: 92° 12' (west from Greenwich).

POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	6,966
Female.....	6,172
Native	11,692
Foreign-born	1,446
White.....	8,611
Colored	*4,527

* Including 10 Chinese and 10 Indians.

FINANCIAL CONDITION:

Total Valuation: \$4,465,205; per capita: \$340 00. Net Indebtedness: \$335,243; per capita: \$25 52; Tax per \$100: \$3 85.

LITTLE ROCK.

Little Rock, the capital of the state, was laid out and settled in 1820. It is situated near the center of the state, on the south bank of the Arkansas river, 250 miles above its mouth, where it empties into the Mississippi river. It is built upon the first high land reached in ascending the river, which is here 1,200 feet wide and navigable 8 months in the year for large steamboats, smaller ones plying to Fort Smith, on the border of Indian territory,

300 miles above. The rocky cliff on which the city stands, and from which it takes its name, is not more than 50 feet above the river, while the Big Rock, beginning 2 miles above, is a precipitous range rising abruptly some 500 feet.

RAILROAD COMMUNICATIONS.

Little Rock is touched by the following railroads:

The Little Rock and Fort Smith railroad, to Fort Smith.

The Memphis and Little Rock railroad, to Memphis.

The Saint Louis, Iron Mountain, and Southern railroad, from Saint Louis, Missouri, to Texarkana, Texas.

No further information regarding the city was furnished.